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Selling tobacco: A comprehensive analysis of the U.S. tobacco advertising landscape

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Abstract

Objectives: To describe advertising tactics of cigarette, e-cigarette, little cigar/cigarillo and smokeless tobacco manufacturers.

Methods: We conducted a content analysis of tobacco 827 ads run in the US in 2016. Ads were double coded by trained coders across ten domains: promotions, web/social media presence, use cues, warnings and disclaimers, descriptors, claims, activities, setting, imagery, and themes.

Results: Cigarette ads relied on promotional tactics like discounts and sweepstakes and featured links to websites and mobile apps, all of which can increase brand loyalty and customer engagement. E-cigarette ads used tactics that appear to target new consumers, such as highlighting the product's qualities and modeling product use. Little cigar/cigarillo ads often positioned the product as social and featured music, urban and nightlife settings. Smokeless tobacco ads frequently featured themes, activities and settings stereotypically thought of as masculine.

Conclusions: The tactics used to advertise tobacco products can help generate new consumers, encourage product/brand switching, and escalate use among current users. Understanding how different products are advertised can inform the Food and Drug Administration's regulatory efforts, and tobacco counter-marketing campaigns.

Keywords

tobacco; marketing; advertising; cigarettes; smokeless tobacco; cigars

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1. INTRODUCTION

Tobacco use remains the leading cause of preventable death in the United States.¹ Recent data indicates that over a quarter (27.6%) of adults are current tobacco users, and 8.9% of adolescents have used tobacco in the past 30 days.² Cigarettes, e-cigarettes, smokeless tobacco and cigarillos/filtered cigars (LCCs) are the most commonly used tobacco products.^{2,3}

Tobacco advertising, a key causal agent of tobacco use,⁴ affects numerous consumer perceptions and behaviors, from product risk perceptions and use expectancies to initiation, continued use, and relapse after quitting.^{4,5} These effects are reflected in tobacco companies' marketing efforts and expenditures. In 2016, cigarette and ST companies spent \$9.5 billion dollars on domestic advertising,^{6,7} while e-cigarette marketing expenditures continue to rapidly increase.^{8,9}

Advertising, including tobacco advertising, drives product purchase in several ways.^{10–12} Advertising for a new product (or brand) often *introduces the product to consumers*, signaling the existence of the product and illustrating its features to demonstrate benefits over existing products. Advertising for existing products may attempt to *generate new consumers* by persuading those not already using the product to initiate use. This advertising may attempt to demonstrate the product's functional (e.g., simplicity of use, good taste) or psychosocial (e.g., popularity, relaxation) benefits. Advertising may also encourage *brand or product switching*, attempting to convert users of a similar product or brand to a different product or brand (e.g., e-cigarette ads may target cigarette smokers, or Marlboro ads may target Camel smokers).¹¹ Lastly, advertising can address *customer retention*, targeting existing product users in an attempt to increase intensity of use or engender brand loyalty.¹³ This can be done through tactics including reminding consumers of the product, and incentivizing purchases through rewards and discounts.

Research on tobacco marketing identifies several domains of advertising tactics common to the industry: product claims, promotional tactics, text descriptors, imagery and overarching narratives or themes.⁵ It is critical to tobacco control efforts to monitor these and other approaches tobacco companies use to advertise their products to understand how tobacco marketing drives use motivations and contributes overall to product use. Comprehensive analyses of the tobacco marketing landscape can identify common tactics and alert regulators and practitioners to potential tactics that may be attractive to youth, or that may disproportionately target vulnerable populations and contribute to health disparities.¹⁴

To address this need, the current study analyzed a large sample of cigarette, e-cigarette, smokeless tobacco and LCC ads to describe the tactics used to advertise these products and to compare the use of these tactics across product types. The overarching aim of this study is to provide an in-depth description of the use of different advertising tactics among cigarette, e-cigarette, smokeless tobacco and LCC ads. We also sought to answer several research questions, described below.

First, cigarettes have been the dominant product in the tobacco market for the past century but now face decreasing rates of smokers. To examine whether cigarette ads focused on

maintaining the interest of current smokers through strategies oriented towards customer retention—including increasing brand loyalty, intensifying use among existing users, and allaying concerns about the health risks of smoking—we asked:

RQ1: To what extent do cigarette ads feature (a) price discounts, (b) links to websites, social media accounts, mobile apps, and QR codes, and (c) eco-friendly language and themes?

Second, because e-cigarettes are relatively new to the market, it is likely that their advertising would be oriented towards introducing the product to consumers and encouraging switching from cigarettes. To examine this, we asked:

RQ2: To what extent do e-cigarette ads (a) feature the product in the ad, and (b) position the product as an alternative to smoking?

Next, LCCs are especially popular among younger people,² sold in appealing flavors,¹⁵ and heavily advertised in urban environments.¹⁶ To explore whether ads for these products were oriented towards generating new consumers by using features that appeal to this demographic, we asked:

RQ3: To what extent do ads for LCCs feature youth-oriented settings and activities?

Finally, because ST is disproportionately used by males and those living in rural areas,^{2,17} we explored whether ads would attempt to align the product with this market segment. Specifically, we asked:

RQ4: To what extent do ST ads feature activities, settings and themes associated with masculinity?

In addition to these specific research questions, we also sought to explore the larger breadth of tactics used by the tobacco industry to market each product type.

2. METHODS

We conducted a content analysis of 827 cigarette, e-cigarette, LCC and ST ads, which ran during 2016, coding for a range of advertising tactics.

2.1 Sample.

We identified 373 unique ads using Competitrack, a market research firm that monitors print (e.g., magazines, direct mail), digital (e.g., online/mobile, opt-in emails), outdoor (e.g., billboards, public transportation) and broadcast (e.g., radio, TV) ads. We identified 455 additional unique direct mail and email ads using Trinkets & Trash (www.trinketsandtrash.org), a tobacco marketing surveillance system maintained at Rutgers University. While these sources captured a wide range of ads, we cannot be certain they represent the full spectrum of tobacco advertisements run during the study period. We downloaded cigarette, e-cigarette, LCC and ST ads run at any time during 2016, resulting in a total sample of 828 unique ads: 270 cigarette, 131 e-cigarette, 34 LCC, and 392 ST. One ad whose product type could not be verified (it featured only brand imagery) was excluded from the analysis, for a final sample of 827.

2.2 Measures.

Codebook development entailed a top-down/bottom-up process that relied on existing research and a qualitative review of study ads, allowing us to create codes for variables of interest to our research questions while also capturing the breadth of tobacco advertising tactics. This process included: (1) a review of the literature on tobacco advertising, which identified several strategies used by tobacco companies to introduce products to consumers, generate new users, promote brand or product switching, and retain customers^{5,17–19}; (2) a qualitative review of ads, which identified additional advertising strategies not noted in the existing literature. The resulting codebook captured features across ten domains: (1) promotions, (2) web/social media presence, (3) use cues, (4) warnings and disclaimers, (5) descriptors, (6) claims, (7) activities, (8) setting, (9) imagery, and (10) themes (see Table 1 for domains and codes; Supplemental Table 1 provides detailed code descriptions).

2.3 Coding procedure.

Eight coders were trained over a two-month period through an iterative process of reviewing and coding ads, comparing codes, and discussing discrepant codes, until sufficient reliability was obtained. Coders then double-coded all ads using a RedCap data entry platform. Upon completion of coding, codes were reviewed and discrepancies were reconciled through discussion.

2.4 Analysis.

Prevalence of ads featuring each code were calculated for the entire sample and each product type. Chi-square tests were used to examine differences in the prevalence of each code across product type.

3. RESULTS

Table 2 presents coding results, Figure 1 presents illustrative ads, and Table 3 contextualizes and relates study results to their associated research questions.

3.1 Promotions.

Price reductions (featured in 30.7% of ads), then sweepstakes (20.4% of ads) were the most commonly used promotions. Price reductions were used most frequently in cigarette (44.1%) and ST (25.0%) ads, while sweepstakes were most commonly featured in LCC (47.1%) and cigarette (29.6%) ads.

3.2 Web, mobile and social media.

Over three-fourths (78.7%) of ads featured a web link/URL. Information about mobile apps (7.5% of ads) was the next most common media prompt. Nearly all cigarette ads (94.5%) featured a web link/URL, while 22.9% featured information about a mobile app. While only 48.1% of e-cigarette ads featured a web link/URL, these ads had slightly higher rates of social media links, with 6.1% referencing a Facebook account, 6.1% referencing a Twitter account and 4.6% referencing an Instagram account.

3.3 Use cues.

Nearly two-thirds of ads (71.1%) showed the product packaging, while 33.9% featured the product. Almost no ad (0.2%) contained information on where to purchase the product. E-cigarette ads most frequently showed the product in use (26.0%).

3.4 Warnings and disclaimers.

Mandated warnings for cigarette and ST ads were distributed fairly equally, although the “Smoking by pregnant women...” warning on cigarette ads (30.3%) and “This product can cause gum disease...” warning on ST ads (28.1%) appeared slightly more than other warnings. Two-thirds (65.7%) of cigarette and 17.7% of LCC ads had disclaimers that the product was not safer than other products, while 59.4% of cigarette ads warned that the product would not help one quit smoking. Only one (0.8%) e-cigarette ad had a disclaimer that the product would not help one quit smoking. One-third (32.1%) of e-cigarette ads featured text that the product contained nicotine, while only 2 (0.7%) cigarette ads featured this disclaimer.

3.5 Descriptors.

There were few common descriptors across products. Among cigarette ads, the most commonly used descriptors were “bold” (13.3% of ads) and “natural” (11.1%). “New” (8.4%) was the most often used descriptor in e-cigarette ads followed by “satisfying” (6.1%). “Smooth” (29.4%), “fresh” (23.5%) and “sweet” (17.7%) were the most common descriptors in LCC ads, while “satisfying” (7.9%) and “premium” (6.1%) were the most frequent in ST ads.

3.6 Claims.

Few ads made unambiguous product claims. Claims a product was high quality occurred commonly among all products. Some cigarette ads claimed the product was unique (6.3%). E-cigarette ads made the most product claims out of all product classes, claiming that their product was similar to a cigarette (15.3%), new (14.5%), would save the user money (10.7%), rechargeable (9.9%) and an alternative to smoking (9.2%). No claims other than high quality occurred commonly among LCC or ST ads.

3.7 Activities.

The most commonly featured activities in cigarette ads were automobile-related (14.4%). These were also common in ST ads (10.0%), as were manual labor (11.5%) and hunting (10.0%). Music (61.8%) was the dominant activity in LCC ads while e-cigarette ads rarely featured activities.

3.8 Settings.

Cigarette ads predominantly featured great outdoors (30.7%), nightlife (16.3%) and city (14.8%) settings. LCC ads most often included nightlife settings (29.4%), while ST ads were most often set in the great outdoors (21.7%). Common settings were rare among e-cigarette advertisements.

3.9 Imagery.

Animal imagery was common in cigarette (26.7%) and ST (57.4%) ads, primarily among Marlboro cigarettes (horses) and Grizzly smokeless tobacco (bear logo) ads. Cigarette ads also contained flora imagery (15.2%), as did ST ads (8.2%), which also featured other brand images (9.7%; e.g., John Deere tractor). E-cigarette ads used fruit (9.2%) and flora (9.9%) imagery, typically to represent flavors. LCC ads did not use imagery that appeared commonly across ads.

3.10 Themes.

Cigarette ads often used sociability (20.7%), fun (17.0%) and outdoors (16.7%) themes. LCC ads also often used sociability (11.8%) and fun (11.8%) themes. ST ads often used masculinity (28.3%), everyman (27.0%) and outdoors (23.5%) themes. E-cigarette ads did not typically contain overarching themes.

4. DISCUSSION

There is a long history of research into tobacco advertising practices. The current study adds to this literature by providing a comprehensive description of the breadth of tactics currently used to advertise cigarettes, e-cigarettes, LCCs and ST. This overview enables the identification of both continuing practices (e.g., the use of masculinity in ST advertising^{5,18–20}) and more recent strategies (e.g., use of eco-friendly tactics^{21–23}).

4.1 Overarching findings across products.

Price discounts and sweepstakes remain commonly used promotional tactics. Price reductions, which occurred most often in cigarette ads, have long been used by cigarette manufacturers to help subvert the effect of tobacco taxes.^{24,25} Such reductions (see Figure 1-Ad 2) may contribute to socioeconomic disparities in cigarette use, as higher product prices are associated with less product purchase intent and use,²⁶ and individuals of lower socioeconomic status are more likely to report receiving coupons.^{27,28} Sweepstakes (see Figure 1-Ads 1, 3, 5) can drive consumer engagement with a brand, as entering sweepstakes requires providing information to the advertiser.²⁹ As a result, sweepstakes are often used to obtain information about consumers, facilitating further marketing.³⁰

Another prevalent strategy is the tactic of connecting to a brand's online presence, an approach which may drive continued brand engagement. Nearly all cigarette, most LCC and ST, and nearly half of e-cigarette ads contained a web URL. Branded websites allow consumers to learn more about the brand, engage with other consumers via discussion boards, and sign up for mailing lists, which send consumers targeted marketing.^{31,32} Fewer ads connected to social media pages, with e-cigarettes featuring the highest rates. Given the widespread use of social media, particularly among young people, and the fact that these contexts are often underregulated, it is critical to identify and examine the messages presented on these linked social media sites.

Ads also featured a variety of mandated and voluntary warnings and disclaimers. Notably, few e-cigarette ads contained the disclaimer that the product is not a cessation device,

although several did convey that the product could help one quit smoking cigarettes, was similar to cigarettes, or an alternative to smoking (see Figure 1-Ad 11). Only one-third of e-cigarette ads contained nicotine warnings, which could contribute to youth not realizing e-liquid contains nicotine.³³ (As of 8/2018, e-cigarette packaging must contain a nicotine warning.)

4.2 Cigarette marketing and customer retention.

RQ1 explored the extent to which cigarette ads used price discounts and links to mobile/online resources—which could generate brand loyalty and intensify use—as well as eco-friendly language and themes—which could allay concerns about the risks of smoking. Cigarette ads commonly relied on promotional tactics like discounts (see Figure 1-Ad 2) and sweepstakes (see Figure 1-Ads 2 and 3), which facilitate engagement with the brand and can increase brand loyalty. Cigarettes also commonly featured links to websites and mobile apps, which can be accessed to obtain coupons and product information.³⁴ These practices may be appealing to younger consumers who are curious about the product, and current users looking to receive discounts and promotions. Additionally, sweepstakes, websites, and mobile apps present opportunities for tobacco companies to collect data on consumers and deliver highly targeted marketing.

Cigarette ads also associated their product with the outdoors, which may lead consumers to view the product as natural, a perception that has been shown to promote false beliefs about reduced harm³⁵ (see Figure 1-Ad 1). Explicit product claims were rare, potentially helping cigarette companies avoid regulatory attention. Finally, cigarette ads featured themes of sociability and fun (see Figure 1-Ad 2); themes which communicate to consumers that the product facilitates socialization and enhances mood—product benefits that connect to consumer reports of using cigarettes to socialize with others and regulate mood,^{36,37} and that may be attractive to young people.³⁸

4.3 E-cigarette ads and generating new users.

Our second research question explored e-cigarette ad approaches to generating new consumers, including introducing the product to consumers and encouraging smokers to switch. Ads often featured the product in use, which helps consumers identify a novel product at a store and understand how to use it. E-cigarette ads rarely contained overarching themes, instead focusing on the product and its qualities as well as featuring claims that the product was new, similar to smoking, and high quality (see Figure 1-Ads 9–11). In line with work demonstrating that new tobacco products often try to position themselves as an alternative to smoking,¹⁹ the presence of these claims suggests that e-cigarette companies are still attempting to introduce their products or brands to consumers. Claims that a product is new may serve to attract youth, who report curiosity as a reason for use,³⁹ and smokers who report using the product as a cessation device.^{40,41}

4.4 LCC ads and urban and youth oriented tactics.

Our third research question examined the use of tactics that would appeal to youth and urban populations among LCC ads. Findings indicate that LCC ads often associated the product with music – an approach recognized by cigarette companies as an effective way to appeal to

young audiences⁴²—and urban and nightlife settings (see Figure 1-Ad 4). These tactics may also establish LCC use as a primarily social activity, an association supported by users reporting socialization as a main reason for use.⁴³ The most common product descriptors were smooth and fresh, which could attract users who report appealing flavors as a main reason for use,⁴⁴ as well as youth, given previous research supporting the tobacco industry's use of flavors to entice this population.¹⁵

4.5 ST and targeting males.

Our fourth research question addressed the extent to which ST ads appear to target men. In line with existing research, we found that ST ads frequently featured themes, activities and settings stereotypically considered masculine^{5,18–20} (see Figure 1-Ads 6–8); a focus which may, in part, reinforce gender disparities in product use.^{2,17} Ads often used blue collar and masculinity themes, and associated the product with the outdoors and activities like manual labor or hunting; features that may contribute to existing views of high-risk use groups such as rural, male adolescents, who view ST use as a normative part of rural culture.⁴⁵ These characteristics align with others' work examining smokeless tobacco marketing,^{5,18–20} and correspond to gender disparities in smokeless tobacco use.^{2,17}

4.6 Public health implications.

These findings have several implications for public health. In the United States, the FDA can regulate tobacco advertising tactics in several ways. Tobacco companies are prohibited from advertising a product as reduced risk without first obtaining a permissive order, and are prohibited from sponsoring events (e.g., festivals, athletic events) and distributing non-tobacco products bearing the company's brand name/logo. Additionally, cigarettes and smokeless tobacco ads are required to feature designated warnings. A comprehensive description of the tobacco marketing landscape is critical to inform such regulations. Based on this study's findings, regulatory agencies may opt to first focus regulatory efforts on more prevalent features, if future research indicates those features attract youth or result in inaccurate reduced risk perceptions. Sweepstakes and contests in particular are tactics worth further investigation, as they are featured in one out of every five tobacco ads and represent a way for tobacco companies to collect consumer data and further market to them.

Sweepstakes and contests may also feature prizes that are attractive to youth (e.g., Figure 1-Ad 3). Future research should examine how the tactics identified in this study influence product perceptions, use intentions and use behavior.

These findings can inform the development of effective product warnings and educational interventions. Understanding how tobacco products are marketed can provide insight into consumer use motivations and inform countermarketing efforts. For example, the prevalence of ads that make claims regarding e-cigarettes' similarity to cigarettes and potential as cessation devices underscore the need for warning labels that clearly convey the product's risks and intended uses. Counter-marketing interventions could be developed that educate consumers about such marketing tactics, for instance showing how ads use tactics that can be deceptive to consumers. Finally, systematic content analyses, such as the current study, can serve as a baseline from which to compare tobacco marketing post-regulation.

4.7 Limitations and strengths.

The current analysis has several limitations. First, we did not collect social media posts by tobacco companies, and we cannot be sure that the ad sample is fully representative of all tobacco marketing. However, marketing during a specific period often follows a particular brand strategy, in which all marketing materials for a specific brand or sub-brand convey a similar message. Traditional advertisements, such as those collected in our sample, provide insight into that overarching strategy. Additionally, the brands represented in our sample largely correspond to the brands with the largest portions of market share.^{46–49} It should also be noted that coders were directed to apply codes conservatively, particularly regarding more subjective content such as the presence of claims and themes. With any content analysis, sensitivity and specificity of the coding protocol must be balanced. A more specific coding protocol should result in a high level of confidence that any applied code was actually present in the ad, but risks not identifying more ambiguous manifestations of a code. A more sensitive coding protocol should result in a high level of confidence that all possible manifestations of a code were captured, but introduces the possibility that codes would be over-generously applied (false-positives). Our coding scheme prioritized specificity over sensitivity. Finally, we do not have channel placement data at present, which precludes us from making claims about the prevalence of advertising for each product across different channels. Variation across channels is an area worth pursuing in-depth in further research.

5. CONCLUSIONS

This study provides an updated, comprehensive description of the tactics used to advertise cigarettes, e-cigarettes, LCCs, and smokeless tobacco. Given the strong association between exposure to tobacco marketing and subsequent tobacco use, it is critical to understand how tobacco companies market to consumers. Understanding how these products are marketed can provide insight regarding consumers' motivations for use, and can inform tobacco use prevention efforts. Future research should examine how the tactics identified in this study influence consumer product perceptions, use intentions and use behavior. Areas of particular regulatory relevance include tactics that are uniquely appealing to youth and tactics that could inaccurately convey reduced harm.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Highlights:

- Tobacco companies use a variety of sophisticated tactics to attract consumers.
- Cigarette ads used tactics to engender loyalty and engagement, such as discounts.
- E-cigarette ads targeted new consumers by focusing on product characteristics.
- Little cigar/cigarillo ads often positioned the product in social or urban contexts.
- Smokeless tobacco ads frequently used appeals to masculinity.

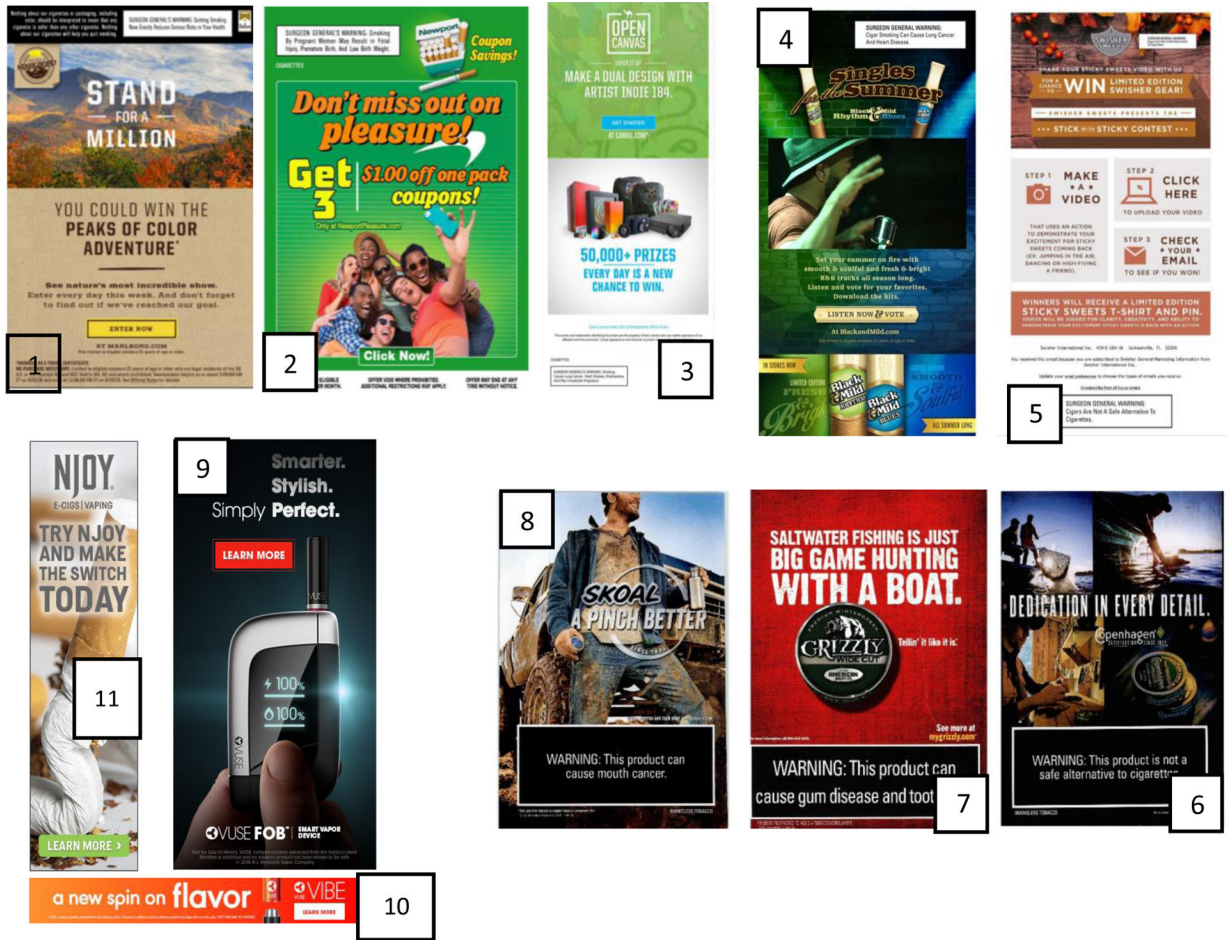


Figure 1.

Exemplar ads

Ad images clockwise from upper left: 1. Marlboro cigarette ad featuring environmental theme, outdoor setting, sweepstakes; 2. Newport cigarette ad featuring discount, product and product pack, sociability theme; 3. Camel cigarette ad featuring sweepstakes, 4. Black & Mild filtered cigar ad featuring ‘smooth’ and ‘fresh’ descriptors, nightlife setting, music activity; 5. Swisher Sweets ad featuring a contest, 6. Copenhagen smokeless tobacco ad featuring manual labor, hunting (fishing), outdoors setting, high quality claim, masculinity and blue collar theme; 7. Grizzly ad referencing hunting (fishing), masculinity and blue collar theme; 8. Skoal smokeless tobacco ad with masculinity and blue collar theme; 9. VUSE e-cigarette ad featuring product, web link to learn about product 10. VUSE e-cigarette ad featuring product, new description, web link to learn about product; 11. NJOY ad implying product could help one quit smoking, featuring web link to learn about product.

Table 1.

List of coded features in ads

Domain and code	Description
Promotions (all that apply) PABAK=.89	Sweepstakes; Giveaways; Price reduction; Co-sponsored event
Web/social media (all that apply) PABAK=.94	Presence of links/URLs for website; Facebook; Instagram; Twitter; Snapchat; Apps; QR code
Use cues (all that apply) PABAK=.87	Product packaging shown; Product shown; E-liquid bottle shown (e-cigarette ads only); Product in use; Smoke or 'vapor' present; Location to purchase product shown; Price shown
Warnings and disclaimers (all that apply) PABAK=.90	Presence of individual mandated and voluntary warnings and disclaimers
Ad-level descriptors (all that apply) PABAK=.96	No additives/Additive-free; Authentic; Bold; Cool; Deep; Fresh; Fruity; Full; Green; Juicy; Light; Long-lasting; Mild; Minty; Natural; New; Organic; Premium; Rich; Robust; Satisfying; Smooth; Sweet; "Tobacco and water"; Velvety
Claims (all that apply) PABAK=.91	Reduced harm; Product is a smart choice; Product is an alternative to smoking in smoke-free settings; Product is a general alternative to smoking; Product is similar to a cigarette; Product can help one quit smoking; Product is rechargeable; No smell; Good smell; No ash; No smoke; Savings; High quality; Made in the USA; Made locally; Product is unique; Product is new
Activities shown in ad (all that apply) PABAK=.94	Sports/athletics; Automobiles; Manual labor; Hunting; Music; Dancing; Gambling; Boating; Partying; Drinking alcohol; Vacationing; Being romantic; Relaxing
Setting (select one) PABAK=.92	City; Nightlife (nightclubs, bars, etc.); Sporting event; Casino; Farm; Open road; Island/tropical; Great outdoors (forests, open fields, mountains, etc.)
Imagery (all that apply) PABAK=.95	Tobacco; Fruit; Water; American flag; Money; Motorcycle; Alcohol; Animals; Flora; Other brand images
Theme (select up to 2) PABAK=.92	Masculinity; Femininity; Sociability; Individuality; Freedom; Rebellion; Sexuality; Luxury; Everyman (i.e., blue collar); Patriotism; Tradition; Fun; Technology;
PABAK=.92	Relaxation; Environmental; Outdoors

Intercooder reliability was calculated using prevalence adjusted bias adjusted kappa (PABAK) to account for lowprevalence rates across codes.

PABAK = prevalence adjusted bias adjusted kappa, used due to low prevalence rates of codes.

	Cigarette		E-cigarette		LCC		ST		Total	
Promotions	%	n	%	n	%	n	%	n	%	n
Descriptors	%	n	%	n	%	n	%	n	%	n
No additives	10.4	28	0.0	0	0.0	0	0.0	0	3.4	28
Authentic	0.0	0	0.8	1	0.0	0	0.0	0	0.1	1
Bold	13.3	36	1.5	2	0.0	0	1.8	7	5.4	45
Cool	2.2	6	0.0	0	0.0	0	0.0	0	0.7	6
Deep	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Fresh	2.2	6	0.0	0	23.5	8	1.5	6	2.4	20
Fruity	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Full	4.1	11	1.5	2	0.0	0	0.0	0	1.6	13
Green	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Juicy	0.0	0	0.8	1	0.0	0	0.0	0	0.1	1
Light	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Long-lasting	0.0	0	0.8	1	0.0	0	0.5	2	0.4	3
Mild	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Minty	0.0	0	0.0	0	0.0	0	5.1	20	2.4	20
Natural	11.1	30	0.0	0	2.9	1	0.0	0	3.8	31
New	9.6	26	8.4	11	0.0	0	0.3	1	4.6	38
Organic	6.3	17	0.0	0	0.0	0	0.0	0	2.1	17
Premium	3.0	8	1.5	2	0.0	0	6.1	24	4.1	34
Rich	0.7	2	0.0	0	0.0	0	1.3	5	0.9	7
	Cigarette		E-cigarette		LCC		ST		Total	
Robust	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Satisfying	1.1	3	6.1	8	0.0	0	7.9	31	5.1	42
Smooth	1.5	4	0.0	0	29.4	10	0.0	0	1.7	14
Sweet	0.0	0	2.3	3	17.7	6	2.8	11	2.4	20
Tobacco and water	2.6	7	0.0	0	0.0	0	0.0	0	0.9	7
Velvety	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Claims	%	n	%	n	%	n	%	n	%	n
Reduced harm	0.0	0	0.8	1	0.0	0	0.0	0	0.1	1
Smart choice	0.0	0	3.1	4	0.0	0	0.0	0	0.5	4
Alternative to smoking when one can't smoke	0.0	0	0.0	0	0.0	0	0.5	2	0.2	2
Alternative to smoking in general	0.0	0	9.2	12	0.0	0	0.5	2	1.7	14
Help one quit smoking	0.0	0	5.3	7	0.0	0	0.0	0	0.9	7
Rechargeable	--	--	9.9	13	--	--	--	--	1.6	13
No smell	0.0	0	3.1	4	0.0	0	0.0	0	0.5	4
No ash	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
No smoke	0.0	0	0.8	1	0.0	0	1.5	6	0.9	7
Savings	1.5	4	10.7	14	0.0	0	0.3	1	2.3	19

	Cigarette		E-cigarette		LCC		ST		Total	
Promotions	%	n	%	n	%	n	%	n	%	n
High quality	6.7	18	12.2	16	5.9	2	14.8	58	11.4	94
Made in the USA	1.9	5	0.8	1	0.0	0	4.3	17	2.8	23
Made locally	0.4	1	0.0	0	0.0	0	0.0	0	0.1	1
Unique	6.3	17	1.5	2	2.9	1	0.3	1	2.5	21
New	0.4	1	14.5	19	0.0	0	1.0	4	2.9	24
Similar to a cigarette	0.0	0	15.3	20	0.0	0	0.0	0	2.4	20
Good smelling	0.0	0	0.8	1	5.9	2	0.0	0	0.4	3
Activities	%	n	%	n	%	n	%	n	%	n
Sports/athletics	5.2	14	0.0	0	0.0	0	7.9	31	5.4	45
Automobiles	14.4	39	5.3	7	2.9	1	10.0	39	10.4	86
Manual Labor	5.9	16	0.0	0	0.0	0	11.5	45	7.4	61
Hunting	0.0	0	0.0	0	0.0	0	10.0	39	4.7	39
Music	7.4	20	2.3	3	61.8	21	2.8	11	6.7	55
Dancing	1.9	5	0.0	0	0.0	0	0.0	0	0.6	5
Gambling	3.0	8	0.8	1	0.0	0	1.8	7	1.9	16
Boating	0.0	0	0.0	0	0.0	0	0.5	2	0.2	2
Partying	9.3	25	0.0	0	5.9	2	0.8	3	3.6	30
Drinking alcohol	5.2	14	0.0	0	2.9	1	3.3	13	3.4	28
Vacationing	11.5	31	0.8	1	11.8	4	1.5	6	5.1	42
Being romantic	1.5	4	2.3	3	0.0	0	0.0	0	0.9	7
Relaxing	0.7	2	5.3	7	11.8	4	2.6	10	2.8	23
Setting	%	n	%	n	%	n	%	n	%	n
City	14.8	40	4.6	6	11.8	4	0.3	1	6.2	51
Nightlife	16.3	44	3.8	5	29.4	10	1.0	4	7.6	63
	Cigarette		E-cigarette		LCC		ST		Total	
Sporting event	0.7	2	0.0	0	0.0	0	0.5	2	0.5	4
Casino	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Farm	10.4	28	0.8	1	0.0	0	0.0	0	3.5	29
Open Road	8.5	23	3.1	4	2.9	1	1.0	4	3.9	32
Island/Tropical	0.0	0	0.0	0	0.0	0	0.3	1	0.1	1
Outdoors	30.7	83	3.1	4	0.0	0	21.9	86	20.9	173
Imagery	%	n	%	n	%	n	%	n	%	n
Tobacco	4.1	11	3.8	5	0.0	0	0.3	1	2.1	17
Fruit	0.7	2	9.2	12	0.0	0	0.0	0	1.7	14
Water	1.5	4	0.8	1	0.0	0	0.5	2	0.9	7
Flag	0.0	0	1.5	2	0.0	0	0.0	0	0.2	2
Money	2.6	7	0.0	0	0.0	0	0.3	1	1.0	8
Motorcycle	3.3	9	4.6	6	0.0	0	5.6	22	4.5	37

	Cigarette		E-cigarette		LCC		ST		Total	
	%	n	%	n	%	n	%	n	%	n
Promotions										
Alcohol	4.1	11	0.0	0	2.9	1	1.5	6	2.2	18
Animals	26.7	72	3.1	4	0.0	0	57.4	225	36.4	301
Other brands	1.1	3	0.8	1	8.8	3	9.7	38	5.4	45
Flora	15.2	41	9.9	13	2.9	1	8.2	32	10.5	87
Theme										
Masculinity	6.7	18	2.3	3	0.0	0	28.3	111	16.0	132
Femininity	0.0	0	2.3	3	0.0	0	0.0	0	0.4	3
Sociability	20.7	56	0.0	0	11.8	4	3.3	13	8.8	73
Popularity	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Individuality	0.7	2	3.1	4	0.0	0	0.3	1	0.9	7
Freedom	3.3	9	1.5	2	0.0	0	2.3	9	2.4	20
Rebellion	3.3	9	0.0	0	0.0	0	0.3	1	1.2	10
Sexuality	0.0	0	2.3	3	0.0	0	0.0	0	0.4	3
Luxury	0.0	0	0.8	1	0.0	0	0.0	0	0.1	1
Everyman	6.7	18	0.0	0	0.0	0	27.0	106	15.0	124
Patriotism	0.0	0	0.8	1	0.0	0	2.6	10	1.3	11
Tradition	0.4	1	0.0	0	0.0	0	2.6	10	1.3	11
Fun	17.0	46	1.5	2	11.8	4	3.6	14	8.0	66
Technology	0.0	0	5.3	7	0.0	0	0.0	0	0.9	7
Relaxation	0.7	2	8.4	11	5.9	2	1.3	5	2.4	20
Environment	9.3	25	0.0	0	0.0	0	0.8	3	3.4	28
Outdoors	16.7	45	0.0	0	0.0	0	23.5	92	16.6	137

(a) Indicates mandated FDA warning label.

(b) Standardized warnings about nicotine were not mandated at the time of data collection.

Table 3.

Summary of advertising tactics of interest for each RQ, other common advertising tactics, and possible marketing outcomes, by product type

Cigarettes		E-cigarettes		LCCs		Smokeless tobacco	
RQ1: To what extent do cigarette ads feature (a) price discounts, (b) links to websites, social media accounts, mobile apps, and QR codes, and (c) eco-friendly language and themes?		RQ2: To what extent do e-cigarette ads (a) feature the product in the ad, and (b) position the product as an alternative to smoking?		RQ3: To what extent do ads for LCCs feature youth-oriented settings and activities?		RQ4: To what extent do ST ads feature activities, settings and themes associated with masculinity?	
Advertising tactic of interest	Possible marketing outcome	Advertising tactic of interest	Possible marketing outcome	Advertising tactic of interest	Possible marketing outcome	Advertising tactic of interest	Possible marketing outcome
Price reduction	Cue product purchase, Encourage switching; Appeal to price sensitive consumer	Product and packaging shown	Introduce product; Help consumer s identify product in store	Fresh, smooth, sweet descriptors	Attract younger consumers; Allay concerns about health risks	Outdoors settings; automobile, manual labor, hunting activity; Masculinity, Outdoors, and Everyman themes	Attract new consumers and engender brand loyalty among existing consumers
Web and mobile app link	Help consumers learn about product; Spur engagement t with brand among consumers	Product in use	Model product use	Nightlife settings; Music-related activities	Cue product use in these settings; Attract younger consumers who enjoy nightlife and music		
Additive-free/natural descriptors; Outdoors settings and theme	Convey a natural product image. Allay concerns about health risks. Encourage switching, prevent cessation			Sociability and fun themes	Attract new consumers; potentially youth		
Commonadvertisingtactics	Possible marketing outcome	Commonadvertising tactics	Possible marketing outcome	Commonadvertisingtactics	Possible marketing outcome	Commonadvertisingtactics	Possible marketing outcome
Sweepstakes	Spurengagement with brandamong new and existing consumers	Savingsclaims	Attract pricesensitiveconsumers	Sweepstakes	Spurengagement with brandamong new and existing consumers	Pricereduction	Cue productpurchase. Encour- age switching. Appeal to price sensitive consumers
Product packaging shown	Help consumers identify product in store	High quality claims	Attract consumers interested in product quality	Web link	Help consumers learn about product; Spur engagement twith brand	Web link	Help consumers learn about product; Spur engagement twith brand among consumers
Bold descriptor	Attract consumers interested in robust taste	New claims	Introduce product to consumer s	Product shown	Introduce product; Help consumers identify product in store	Product packaging shown	Help consumers identify product in store
Sociability and fun themes	Attract new consumers; potentially youth	Similarity to a cigarette Theme: quality Relaxation	Attract smokers to switch Appeal to stress relief Motivations			High quality claims	Attract consumers interested in product Theme: quality