Developing smokeless tobacco products for smokers: an examination of tobacco industry documents

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ABSTRACT

Objective: To investigate whether development of smokeless tobacco products (SLT) is intended to target current smokers.

Methods: This study analysed internal tobacco industry documents to describe research related to the smokeless tobacco market. Relevant documents included those detailing the development and targeting of SLT products with a particular emphasis on moist snuff.

Results: Cigarette and SLT manufacturers recognised that shifting demographics of SLT users, as well as indoor smoking restrictions, health concerns and reduced social acceptability of smoking could impact the growth of the SLT market. Manufacturers developed new SLT products to target cigarette smokers promoting dual cigarette and SLT use.

Conclusions: Heavy marketing of new SLT products may encourage dual use and result in unknown public health effects. SLT products have been designed to augment cigarette use and offset regulatory strategies such as clean indoor air laws. In the United States, the SLT strategy may provide cigarette companies with a diversified range of products under the prospect of federal regulation. These products may pose significant challenges to efforts by federal agencies to reduce harm caused by tobacco use.

Major cigarette manufacturers including RJ Reynolds, Philip Morris, Lorillard and British American Tobacco have recently made unprecedented moves into the smokeless tobacco (SLT) market, introducing traditional varieties of moist snuff and a new spitless form of SLT, called snus. While cigarette smoking and sales continue to decline in the US, moist snuff continues to grow in popularity, accounting for 71% of the US smokeless tobacco market in 2006.1 Moist snuff is administered orally and consists of finely ground tobacco distributed in loose form or in packets. Snus, or spitless moist snuff, is modelled after a Swedish tobacco product and has been introduced in the US more recently by smokeless and cigarette companies.

Cigarette manufacturers have developed new smokeless products, including moist snuff and snus brands, presented in attractive packaging and available in various flavours. Several of these new products carry the names and flavours of popular cigarette brands (for example, Camel, Lucky Strike, Marlboro). In 2006, Philip Morris (PM) introduced Marlboro Snus and Marlboro Snuff into test market, and RJ Reynolds (RJR) introduced Camel Snus in a number of US states.

This industry activity emulates a pattern seen in other countries. For example, British American Tobacco (BAT) is selling snus in Japan and South Africa also cross-branded with major cigarette brands (Peter Stuyvesant and Lucky Strike).

SLT manufacturers, such as US Smokeless Tobacco Company (USSTC), have also redesigned and marketed new SLT products. In 2001, USSTC introduced Revel, a smokeless, spitless product into test market. The recent introduction and marketing of SLT products, coupled with the rise in moist snuff sales and use, raises questions as to the tobacco industry’s goals in developing and targeting these products.

An examination of internal documents can be used to better understand the cigarette industry’s recent entry into the SLT market and identify the role of targeted SLT product development and marketing. Internal documents made available through litigation have informed an extensive body of evidence describing the industry’s use of targeted product development to exploit specific smoker groups, including youths,2 women,3 menthol smokers4,5 and psychological/psychosocial smoker groups.6 Research by Connolly utilised internal documents to describe how a major SLT company designed starter products to encourage experimentation and nicotine addiction among young new users through a “graduation” strategy (natural progression of product switching to higher nicotine brands).7 However, in general, research on the role of design and targeting of SLT products remains scant.

The purpose of this study was to review internal tobacco industry practices related to development, targeting and intended use of SLT products, particularly moist snuff and snus. Specifically, the objectives of the study were as follows: (1) to review the cigarette industry’s objectives upon entry into the SLT market, (2) to examine research and marketing of SLT as a substitute or temporary complement to cigarette smoking; and (3) to examine product development of SLT products and targeting of smoker groups.

METHODS

Research was conducted through a web-based search of more than eight million internal tobacco industry documents made publicly available through the 1998 Master Settlement Agreement between the state attorneys general and major US tobacco manufacturers. Documents were retrieved from the archival databases maintained online at the British American Tobacco Documents Archive.
More recently, cigarette companies became particularly interested in the increased popularity of moist snuff.\textsuperscript{10, 12, 15} 
PM’s 1993 analysis of the SLT industry reported that volume declines had occurred in every category of SLT with the exception of moist snuff. This report highlighted the predicted growth in the moist snuff category and discussed potential opportunities related to entry into this market.\textsuperscript{10} 

PM also noted that the predicted growth of the moist snuff market, particularly among white collar and urban users, could potentially increase the social acceptability of using snuff.\textsuperscript{PM’s (1993) detailed summary of smokeless tobacco described that moist snuff users were “younger, better educated, less rural and have higher income than traditional smokeless tobacco product users”. \textsuperscript{10}} These demographic changes were considered important in terms of expanding the SLT market. RJR also studied moist snuff use among younger adult users (18–24 year olds) noting that this was the “largest and fastest growing age segment in the moist snuff category”.\textsuperscript{15}

### SLT for smokers: cigarette manufacturers
Past interest in the SLT market has recently translated into major efforts to introduce snuff and snus products into the test and commercial market. Manufacturers have recognised that the rise in indoor smoking restrictions as well as smoking-related health concerns and reduced social acceptability would hinder smoking rates, and, in turn, drive the future growth of the SLT market. Entry into this growing market offered cigarette manufacturers a means of offsetting losses occurring in the cigarette market,\textsuperscript{14, 15} as highlighted by internal industry quotes (table 1).

#### Dual cigarette and SLT use
Internal documents indicate that dual cigarette and SLT users, in particular, have been considered an important target group for moist snuff products.\textsuperscript{10, 11} In 1981, BAT described the possibility of SLT production:

“That such products could produce extra business, from the smokers who would otherwise quit or are unable (or unwilling) to smoke at certain times and places, from those currently taking nicotine in less palatable and acceptable smokeless forms, and from those who would not take up smoking, but could enjoy a smokeless product with nicotine satisfaction on its own merits”.\textsuperscript{12}

In 1993, PM’s analysis of the smokeless tobacco industry concluded that young adult males (who choose moist snuff over loose leaf), college males (who choose snuff over cigarettes) and

### Table 1 Industry quotes highlighting the use of SLT products in a changing cigarette market

| BAT, no date—development of a moist snuff product | “To capitalise on the potential downturn of the smoking habit as the only means of achieving nicotine satisfaction by participating in a parallel product market which is free of social/health concerns, and with attractive profitability potential” |
| PM, 1994—review of SLT market | “Future prohibitions against smoking in public places, work settings, etc, combined with increasing concern for the smoking and health issue, could provide an impetus for smokers to switch to an alternative product” |
| RJR, 2003—cigarette alternative project | “Other sources concur, observing that increased bans on cigarette smoking should benefit the ST [smokeless tobacco] industry” |
| RJR, 2003—cigarette alternative project | “Is there likely to be a cigarette alternative category? Yes, bans and risk reduction will be drivers...It’s difficult to be a smoker today” |
converted or dual usage smokers were driving growth of the moist snuff market. At the same time, PM conducted a qualitative study to investigate smoking and non-smoking snuff users and to determine whether there were opportunities for new brands in this market. This study investigated the concept of Marlboro snuff. Results of this internal research showed that most smokers who expressed interest in trying SLT did not intend to switch completely but would be interested in using “snuff” when they were not able to smoke. Research results indicated that “snuff usage among smokers is primarily for times when they can’t smoke”. When the concept of Marlboro snuff was explored in the early 1990s, PM found that snuff users expressed extreme brand loyalty. In fact, study participants expressed a stronger “user identity” with their snuff brand than that of typical smokers. Smoking snuff users felt that snuff could be used in situations when smoking was not possible (for example, restaurants, college classes, friends’ homes or during work to free hands). However, the concept of a cigarette manufacturer entering the SLT market was generally not well received. Marlboro was considered the only plausible brand for snuff because it held the reputation of a “strong cigarette”. RJR’s (2003) qualitative research under Project MARS indicated potential interest in a smokeless, cigarette alternative among older, heavy smokers. This research indicated that an alternative offered several perceived benefits including a discreet way to satisfy craving, easy of anxiety, a necessary focus when unable to smoke and a method of getting smokers through times when smoking is not possible. These results also emphasised that product positioning and consumer education would be critical to product success, and described that:

“There is a need to clearly position the product as a situational substitute for cigarettes, rather than a replacement … Communication of secondary benefits (e.g. no odor, no second-hand smoke) may help smokers rationalize the use of a product they would rather not admit they need”. SLT for smokers: SLT manufacturers While cigarette manufacturers have recently entered the SLT market to counteract losses in the cigarette market, SLT companies have aimed to capitalise on smoking-related health and social concerns and restrictions. Smoking alternatives for smokers facing public smoking restrictions and social pressure represented an important and promising growth opportunity for the SLT market. A 1992 USSTC document stated:

“the most likely new users are cigarette smokers who face lower social acceptance as smokers and more restrictions on when and where to smoke, some people may smoke less and use smokeless products like snuff because it is more discreet and not subject to bans. Also, some ex-smokers may compensate with smokeless products like snuff”.

USSTC recognised the need for “smoke-free” products because of increased indoor smoking restrictions noting that the litigation environment was less favourable for the cigarette industry than the SLT industry. In 2000, USSTC (located in RJR’s collection) reported an increasing trend in dual usage of cigarettes and SLT (27% in 1998 to 35% in 1999) and attributed this change to rising indoor smoking restrictions as well as consumer perceptions of lower health risks associated with SLT. USSTC stated, “In our view, the key opportunity is increasing moist smokeless tobacco usage among cigarette smokers (versus increasing market share among current users). There is obviously far more economic leverage in attracting current smokers to snuff, as opposed to increasing retention and/or usage among current snuff consumers”. UST aimed to increase a sampling programme focused on current smokers and test market a “spitless” smokeless product in 2001. More recently, USSTC estimated gains in the moist smokeless market as a result of “conversion” (smokers using moist snuff as a socially acceptable alternative). In a 2003 presentation, USSTC asserted that “Conversion is Big Business” and recognised the potential to target smokers facing smoking restrictions.

Cigarette manufacturers closely observed the SLT companies’ interest in smokers. A 1989 PM memo states:

“Until recently, industry experts (see attached) did not believe that cigarette smokers were converting to smokeless tobacco products, due to flavor and usage differences between cigarettes and snuff, plug, and looseleaf. However, some smokers are believed to be supplementing their cigarette smoking with smokeless tobacco. U.S. Tobacco, which already markets their Skoal Bandits as a tobacco option when cigarettes are inappropriate, may be envisioning an increase in this trend, in light of recent impositions of smoking restrictions and other social constraints.”

Development of SLT products for smokers Cigarette companies: SLT development The entrance of cigarette companies into the SLT market has resulted in the introduction of sophisticated moist snuff products designed to appeal to smokers. Internal documents reveal that smokeless, spitless tobacco products have historically been considered a long-term product goal and a potential means of delivering nicotine enjoyment in a socially acceptable way. In 1984, RJR noted: “Over time, the smokeless tobacco industry will likely evolve to new product forms and/or attributes that will better satisfy consumer wants for tobacco satisfaction and social acceptability.” A BAT (1981) document stated:

“...mild, probably flavoured, snuff packed in sachets like mini-teabags appears to be the most likely lead or starter product for the fastidious, hygiene-health orientated user who prefers discretion, perhaps for most beginners, certainly for females, and city dwellers. Convenience in use and disposal being a major benefit.”

A number of research and development projects conceptua- lised and tested SLT products with unique taste and flavour characteristics (see table 2). Beginning in the 1980s, RJR pursued moist snuff products to compete with commercial SLT products such as Skoal and Copenhagen under Projects Wet Snuff-Skoal Type (WSS), Copenhagen Type Wet Snuff (WSC) and Wet Snuff Hawken (WSH). Under Project WSH, RJR aimed to develop a flavoured moist snuff product as a means of capitalising on a “consumer taste shift” towards flavoured products.

Manufacturers explored the application of novel technology in the development of SLT products. RJR (1981), for example, examined the use of “microencapsulation” in the development of SLT products including a colourless, spitless product designed for women.” Gum-based technology was also considered a
viable option for delivering tobacco through a spitless, non-
noticeable product that could serve as a socially acceptable
means of enjoying tobacco. Targeting of this technology was
planned for tobacco users including cigarette smokers and was
considered “a key trend for future as anti-smoking forces attack
the social acceptability and passive smoking issues”.29 A 1980 RJ
Reynolds document described long-term product design ideas
including “a moist snuff type chewing product that provides
tobacco/nicotine enjoyment but is spitless and holds together in
mouth”.25

Tobacco manufacturers have recently pursued innovative
SLT product development as a key strategy in circumventing
smoking legislation and targeting the “when you can’t smoke”
continuing smoker groups. Early product development efforts
have been followed by the introduction of various moist snuff
and snus products. For example, in 2006, RJR announced the
test market for “a smokeless tobacco product that will come in
a small pouch that is placed between the lip and gum” named
Camel Snus. RJR pointed out that this product differed from
other moist snuff products stating that it “does not require the
consumer to spit—making it a convenient option for adult
tobacco consumers”.36 PM’s new SLT product, Marlboro Snus,
utilises a unique flavour strip.

**SLT companies: product development**

Targeting of smokers with SLT products has not been exclusive
to cigarette companies. SLT manufacturers also have regarded
smokers as an important market for new moist snuff and snus
products. A 2003 USSTC business review of “moist smokeless
tobacco” (MST) provided data showing that this distinct
market was consistently growing and performing well against
other packaged goods including cigarettes. USSTC estimated
that 45% of smokers were interested in a socially acceptable
alternative to cigarettes.23

This research was followed by extensive industry efforts to
design SLT for smokers and non-traditional SLT users. In 2000,
USSTC documented their plan to launch a “spitless” product
designed for SLT consumers who considered spitting “distaste-
ful”.31 Revel was test marketed as an “Anywhere, anywhere”
product in 2001 and re-launched with mint and wintergreen
flavours in 2005.32 In 2001, PM considered USSTC’s Revel
described as “snuff in tea bag-like pouches in various flavours
and sizes; “spit-less” snuff” as a new product aimed at smokers
and a competitive tobacco-related technology.33–40 PM (1989)
were interested in product design changes within the SLT
market noting:

> “U.S. Tobacco and Pinkerton are introducing new varieties that
> will have more of a cigarette flavor, aimed at switching
> consumers from smokers to chewers. This comes at a time when
> smoking is banned in some work areas, so these brands will be
> targeted as cigarette alternatives.”36

Internal documentation reveals that USSTC was interested in
emulating the “Swedish model” which included key factors
such as moving toward user-friendly pouch products and
product variation and innovation as well as a “focus on
diversified users (including women)”.19 In 2001, SM aimed
to increase snus sales in the US by introducing a spitless
product, Exalt, with the “No smoking? No problem” marketing
message.19

**DISCUSSION**

Internal documents show that tobacco manufacturers, includ-
ing cigarette and SLT companies, have developed and targeted
new SLT products to exploit cigarette smokers. Cigarette
manufacturers recognised the importance of entering the SLT
market especially in light of health, social and legislative
changes influencing the cigarette market and shifting demo-
graphics of traditional SLT users. Cigarette manufacturers were
initially focused on developing alternative smokeless products
for smokers who would otherwise quit because of the changes
in the cigarette market. Over time, the cigarette companies
appear to have focused their efforts on products designed to
augment cigarette use when smoking is not possible, thus
offsetting regulatory strategies such as clean indoor air laws.

Major cigarette companies’ marketing of new SLT products
under established brand names may be aimed at increasing the
appeal of SLT to smokers, who are not necessarily interested in
quitting smoking. At the same time, SLT companies have aimed
to exploit smokers by promoting SLT as a cigarette alternative
in the face of smoking restrictions. UST and SM have developed
and marketed new, spitless SLT to appeal to smokers.

The introduction of new SLT products raises important
questions with regard to the health risks associated with these

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**Table 2** Cigarette manufacturers SLT development projects

<table>
<thead>
<tr>
<th>Project name</th>
<th>Company, date</th>
<th>Goal</th>
<th>Product description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Visa—smokeless tobacco (eg, snuff)</td>
<td>BAT, 1988</td>
<td>Explore smokeless as nicotine alternative product—may be useful in terms of new ways of “smoking”</td>
<td>Smokeless tobacco—plug, snuff, etc</td>
</tr>
<tr>
<td>Project Specialty Tobacco Products (STP)</td>
<td>RJR, 1983</td>
<td>Position RJR as a primary competitor in the moist snuff tobacco market</td>
<td>Dedicate resources to new moist snuff brand under Project WSS/WSC</td>
</tr>
<tr>
<td>Project WSH</td>
<td>RJR, 1981</td>
<td>Compete with SLT products by increasing tobacco satisfaction with more tobacco taste, improve freshness perception</td>
<td>Flavoured prototypes tested among 18–34 flavoured moist snuff users, results showed further improvements necessary</td>
</tr>
<tr>
<td>Project WSS</td>
<td>RJR, 1983</td>
<td>Target skoal users, age 18–34, blue collar, high school educated males</td>
<td>Wintergreen flavour smokeless tobacco—“Refreshing tobacco taste that satisfies the active man”</td>
</tr>
<tr>
<td>Project WSC</td>
<td>RJR, 1983</td>
<td>Target Copenhagen users, 18–34</td>
<td>Natural flavoured smokeless product</td>
</tr>
<tr>
<td>New Brand Development</td>
<td>Lorillard, 1978</td>
<td>Capitalise on market trends and reasure smokers facing “smoking controversy”</td>
<td>Snuff for cigarette smokers</td>
</tr>
<tr>
<td>Project MARS</td>
<td>RJR, 2003</td>
<td>Develop a cigarette alternative that delivers tobacco satisfaction for smokers in situations when they cannot or choose not to smoke</td>
<td>Focus group research indicated interest in a cigarette alternative especially among heavy smokers and adult smokers over 30</td>
</tr>
</tbody>
</table>
products, particularly in light of the possibility that cigarette manufacturers are promoting combined cigarette and SLT use. Heavy marketing of SLT products to smokers by both industries may encourage dual use, and, thus, result in unknown and potentially harmful public health effects. Camel Snus marketing materials, for example, describe the product as “A tasty new tobacco pleasure for wherever” stating “You Can Snus virtually anywhere, from work to bars to trains to your fussy friend’s party”. Test markets for Camel Snus have included college communities. This corresponds with internal documents showing that college males were considered an important growth market for moist snuff. Further, college students are subject to campus and worksite smoking bans and may be enticed by the attractive marketing campaign.

The increased availability and use of SLT as a harm reduction method remains a controversial issue within the public health community. Although new SLT products contain lower levels of total carcinogens, these products still contain potentially harmful levels of toxicants including tobacco specific nitrosamines (TSNAs) and, thus, could result in adverse health consequences when used alone or as a smoking substitute. Assessment of internal SLT research may lead health researchers to an improved understanding of the possible role of SLT in maintaining tobacco dependence.

Nevertheless, the findings of this study should be considered in relation to the limitations associated with document-based research methodology. Internal documents disclose statements and conclusions from various authors representing various tobacco manufacturers that do not represent a complete set of documents. Additionally, the documents span a wide time period and do not represent a complete set of documents. In this study, documents were retrieved through 2006, which may not account for more recent developments in the tobacco market. Despite these limitations, document-based studies have contributed a wealth of important evidence to the published literature regarding internal industry research and practice.

Future studies should examine entry of tobacco manufacturers into the international SLT market, particularly in developing countries with limited tobacco control measures. In South Africa for instance, transnational tobacco companies have taken over production of traditional smokeless brands from local vendors, and simultaneously introduced SLT products cross-branded with major cigarette brands, such as Peter Stuyvesant and Lucky Strike. These products have been similarly promoted in that country as substitute for smoking where smoking is not allowed and the local subsidiaries of SM recently failed in an attempt to have snus exempted from the provisions of the regulation banning tobacco products advertisement and promotion.

In the US, the introduction of these new SLT products designed as discrete, socially acceptable nicotine delivery alternatives may also represent a hedge against the future, as regulation of tobacco products by the US Food and Drug Administration (FDA) may result in a market more favourable to SLT than cigarettes. These potential market changes thus raise significant challenges to the development of effective policies by the FDA or other agencies to reduce harm from tobacco use. If the FDA is given regulatory authority over smokeless, action is needed to assure that products are not designed and promoted to perpetuate smoking.

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REFERENCES
27. Introduction: A. Purpose and scope of the Mini-Lab was to find new ways to use microencapsulation. 1981. RJ Reynolds. http://legacy.library.ucsf.edu/tid/eia78d00.
42. RJ Reynolds. WSC and WSS. Positioning, name and copy strategy development. 1 Jan 1983. RJ Reynolds. http://legacy.library.ucsf.edu/tid/lyq39d00.