

High tech hologram can uproot tobacco counterfeiting

Illicit tobacco trade and tobacco tax evasion are problems that costs governments and manufacturers dearly in terms of lost revenue and damage to brand reputation. Further, the high tax policies on tobacco products make them a lucrative target for counterfeiters. In this article, we will find out how hologram, an anti-counterfeiting technology, could prove to be an important tool in tackling this problem.

An addictive industry

It was in 1600 when tobacco was introduced in India by the Portuguese. It became a valuable commodity of barter trade, being used by the Portuguese for purchasing Indian textiles. In 1776 with the independence of American Colonies, the British East India Company began growing tobacco in India as a cash crop, both for domestic consumption and foreign trade. As domestic consumption of cigarettes rose, the Imperial Tobacco Company (ITC, now *Indian Tobacco Company*) commenced production. Also, in the late nineteenth century, the *beedi*¹ industry began to grow in India. Even though tobacco chewing was practiced for many centuries, commercial production and marketing have been up scaled recently, with the introduction of the *gutkha*².

This industry remains an addictive one since it contributes in a unique manner to several important facets of Indian economy, covering revenue, export, employment, and GDP growth. The Indian tobacco industry mainly covers manufacturing of *cigarette*, *beedi*, cigar and *cheroot*, *hookah*, snuff and other chewing tobacco like *zarda*, *gutkha* and other *pan-masala*.

Tobacco market in India

Presently, India is the second largest producer of tobacco in the world after China. Of the total amount of tobacco produced in the country, around 48 per cent is in the form of chewing tobacco, 38 per cent as *beedis*, and only 14 per

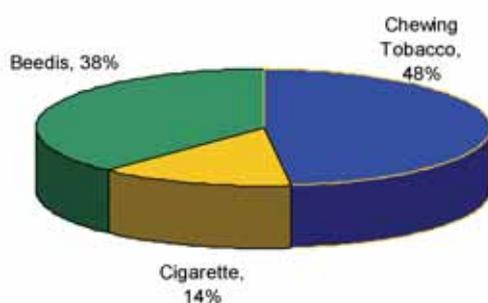


Fig1: Tobacco Consumption in India

Christopher Columbus saw people using tobacco in the Americas in 1492.



Some quick facts:

- 5.5 trillion cigarettes get smoked per year
- One out of three cigarettes is smoked in China
- The total sales from cigarettes is US \$ 5570 billion
- Every year \$600 bn counterfeited & smuggled cigarettes cross national borders
- In India, smuggled cigarettes are estimated at Rs 1700 crore in value.
- Hungary was the first country to use holograms on their tax stamps

cent as *cigarettes*. Thus, *beedis*, snuff and chewing tobacco (such as *gutka*, *khaini* and *zarda*) form the bulk 86 per cent of India's total tobacco production.

The global roadblocks- illicit tobacco trade and tax evasion

i) Illicit tobacco trade – smuggling and counterfeiting

Illicit trade in tobacco products is a global problem. The illicit trade, through smuggling and counterfeiting, creates serious health problems, robs Governments of tax revenues and threatens public safety and security. Moreover, the damage caused by counterfeiting to a company's brand reputation, loss of sales and market capitalisation can be incalculable. A report commissioned by Framework Convention Alliance, said this billion dollar counterfeiting business was estimated at 10.7 per cent of worldwide sales.

Table 1: The 10 biggest market for illicit trade in 2007³

Ranking	Country	Illicit trade (bns of cigarettes)
1	China	214
2	Russian Federation	76
3	United States	62
4	EU	58
5	Brazil	38
6	Philippines	19
7	India	18
8	Indonesia	14
9	Pakistan	13
10	Turkey	12

Table 2: Revenue generated and lives saved with elimination of global illicit trade⁴

Current situation	Global	High income countries	Low and middle income countries
Total illicit cigarette market (% of consumption)	11.60%	9.80%	12.10%
Total illicit cigarette market (cigarettes per year)	657 bn	124 bn	533 bn
Total revenue lost to governments	\$40.5 bn	\$17.6 bn	\$22.9 bn
Estimated deaths in 2030	8.3 mn	1.5 mn	6.8 mn
If this illicit trade were eliminated immediate gain in revenue	\$31.3 bn	\$13 bn	\$18.3 bn
Lives saved in 2030 and annually thereafter	164,000	32,000	132,000

(ii) Tobacco tax evasion

Tobacco taxes are a major source of revenue and have been a significant contributor to the economies of over 150 countries. For example In countries like India and Pakistan the unorganised *beedi* and *gutkha* industry which represent bigger share of tobacco consumed are big sources of revenue loss to government.

Governments lose money when cigarettes are smuggled from lower tax to higher tax states. Most of the world's leading cigarette brands are duplicated because they generate big profits for counterfeiters. The smugglers smuggle into a country where they can make the highest profit, and this should be a country where tax is a high proportion of the

price. The losses in revenue as a result of illicit tobacco trade are enormous, but vary widely among countries. Taxes (excise duties and Value Added Tax), for instance, on a pack of Marlboro vary between \$US 0.85 in China to \$US 8 in the United Kingdom (see Table 3).

Table 3: Cigarette prices in selected markets⁵
(value in US \$)

Market	Average price of a pack of 20 cigarettes
Russia Federation	0.68
India	0.78
China	0.84
Brazil	1.58
USA	4.10
Canada	6.34
United Kingdom	8.24

When tax revenues are stolen, they don't go to their intended sources of funding tax relief programs, healthcare and infrastructure. In some cases, these stolen revenues have been shown to fund criminal and terrorist activities. As a result, governments lose millions of dollars in tax revenue and the security of their citizens is threatened.

Loss to Indian industry

In India, the demand for low cost copies of premium brands, access to high quality reprographic technology that has made it easy and affordable to copy brand packaging, industrial globalisation, extended supply chains, lax regional law enforcement and criminal penalties are the main reasons for explosion in counterfeiting.

As per Directorate of Revenue Intelligence (*DRI*)—**responsible for keeping a watch on the illegal entry of foreign-made cigarettes into the Indian market**), the margin in cigarettes is more nowadays and smugglers are now flooding the Indian market with foreign-made cigarettes as well as their fake.

- India smuggled cigarettes were estimated to account for more than 14 percent of total cigarette consumption in India.
- It is estimated that nearly 4 billion filter cigarettes are made annually and sold by unscrupulous manufacturers without paying of excise duty.
- The 2007 ERC⁶ report noted that non-duty paid sales remains a major problem in India.
- Further, the unorganized *beedi* and *gutka* industry have become a big source of revenue loss to government in India.
- The inferior quality and inedible betel nuts being smuggled into the country, bypassing the excise duties,

trade and entry taxes, from Nepal and north-eastern states are not only taking a toll on people’s health but also ruining the revenue targets of the government.

- The revenue department is estimated to incur a loss of over Rs 3,000 crore US\$ every year due to this.

Kanpur alone accounts for a revenue shortfall of Rs 900 crore owing to large consumption of such betel nuts in over 40 pan masala and gutkha production units. According to an official of the Department of Revenue Intelligence (DRI), the volume of trade in gutkha industry should fetch around Rs 3,500 crore as revenue but the recovery has failed to move beyond Rs 800 crore. The department had recently seized large quantities of betel nuts being illegally smuggled into the country from the Nepal border. A large number of smaller gutkha manufacturers spread across the city procure this smuggled supari from the network and sell the manufactured products in the market, without considering the ill-effects of low quality inputs. Due to the illicit nature of procurement, the finished products and the raw material purchases for this processing are not shown on the company records, thereby hitting the revenue targets of the government

Source: www.business-standard.com

- DRI had recently issued guidelines for the manufacturers to show their monthly statements of raw material purchase and figures for gutkha production but the effect seems to be trifling
- According to industry players, Rs 200,000 worth betel nuts produce around Rs 2 crore worth of gutka. So, an estimated 100 tonnes of betel nuts (worth Rs 40 lakh) being traded into the city everyday produces gutka worth over Rs 4 crore everyday while this production is never on the record.
- Further the increased excise duty on tobacco industry in the Union Budget for 2010-11 may encourages evasion and inter-state / international smuggling (See Table 4).

Table 4: Basic excise duty on tobacco in India

Commodity	Excise Duty	Increased Excise
	F.Y. 2009-2010	Duty F.Y. 2010-11
Branded unmanufactured tobacco	42%	50%
Tobacco refuse	42%	50%
Chewing tobacco	50%	60%
Zarda, Scented tobacco and Snuff	50%	60%
Pan Masala	8%	10%
Branded Hookah or gudaku	8%	10%

Source: Union Budget 2010-2011

Solution - Hologram

Globally, steps have been taken to fight this problem. One answer could be for India to adopt hologram or holographic tax stamps. Tax stamps serve two purposes. One is to provide a record of payment of tax that is tracking of cigarette/tobacco packs throughout their distribution would enable tax authorities to ensure proper tax collection.



Fig.2: A Hungarian tax stamp for cigarettes. Using since, 1995 Hungary was one of the first countries to use hologram on its tax stamps.

The other is to provide evidence that the stamp, and hence the product to which it is affixed, is genuine. Although it is a 15-year old application, holographic government tax stamps prove to be an important device for authentication and revenue collection purposes. Today, tax stamps make up a significant share of the security print market. It is part of the largest sub-sector of the security print market, placing tax stamps ahead of banknotes in terms of printed documents globally.



Fig 3: Latvia’s cigarette tax stamps are applied as self-adhesive holographic labels

In the current global markets, to fight the problem of tobacco counterfeiting, holographic tax stamps are widely used for authentication worldwide. Holograms are security devices that have effects which cannot be exactly replicated by normal reprographics methods. Expensive and high-tech hologram printers print holograms directly on cigarette packets. As per Reconnaissance international, UK globally, an estimated 124 billion tax stamps are issued annually for cigarettes out of which 60 billion features a hologram. As of 2007, 68 countries were using tax stamps for cigarettes, of these 20 used hologram on their cigarette stamps which is 29% of the total.

For example In Asia also, a Chinese tobacco company uses a flexo press printer that incorporates a hot foil hologram unit to print holograms. These are printed on the flip-tops of boxes and on the outer boxes of the cigarette packets, so consumers can easily check if products are genuine.



Further, Bangladesh has started using tax stamps six years back, and since the introduction the government's collection from this industry increased consistently. After the introduction of tax stamps and band rolls six years back, the Bangladesh government's collected approximately Taka 45 billion (US \$ 650 million) in VAT and supplementary duty during fiscal 2007-2008.

As per Ukraine's EADPS consortium, which is endorsed by INTERPOL, advances in hologram technology can help government in safe guarding loss of revenue worth \$ 50 billion (US).

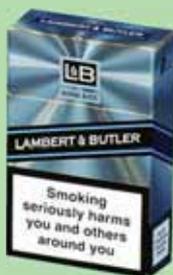
In India, holograms are used by tobacco manufacturers to combat counterfeiting. It is used in various forms for example:

- i. Holographic tagger foil for tin boxes
- ii. Holographic security thread for tobacco packs
- iii. Holographic pouch
- iv. Security Hologram



In year 2007-2008, Imperial Tobacco developed holographic cartons designed to celebrate Lambert & Butler position of 10 years as UK's biggest FMCG brand. The hologram used by Imperial Tobacco received the "Best promotion award" given by International Hologram Manufacturers Association (IHMA).

Lambert & Butler is a British cigarette brand.



The strategy is to increase the sale of products by using innovative packaging, giving unique look, increasing brand identity as well as to secure the product from counterfeiters.

Recommendations

Undoubtedly, hologram have become widely accepted as an effective authentication device. Today, they present a great opportunity for governments to act decisively & boost excise revenue from growing tobacco sales, and for manufacturers to protect their brand and use the technology as an integral part of their strategy.

The Secretary General of the World Customs Organizations has singled out praise for the Ukrainian systems of protecting goods with tax stamps with holographic security elements. Also, the World Bank and the International Monetary Fund have both declared the introduction of anti-counterfeiting measures such as forgery-proof tax stamps as essential to combating tobacco smuggling.

Thus, Indian Excise Department too should use security holograms to check the theft and pilferage of Central Excise Duty on various excisable tobacco products like Cigarette and Pan Masala. The Hologram should have central excise Logo, incorporating various holographic security features, lot number and serial number etc. Mandatory application of Holograms on tobacco products and the use of holographic technology will substantially increase the Excise Revenue and prove to be the best solution for protecting tax stamps against the indelible mark of the counterfeiter. ■

References:

¹ *Beedi-A beedi is a thin, South Asian cigarette made of 0.2-0.3 grams of tobacco flake wrapped in a tendu (or temburini; Diospyros melonoxylon) leaf and secured with colored thread at both ends.*

² *Gutkha – Manufactured in India Gutkha is a preparation of crushed betel nut, tobacco, catechu, lime and sweet or savory flavorings.*

³ *Framework Convention Alliance, How big was the global illicit trade problem in 2006? Geneva, 2007, available at www.ftc.org/.../fca-2007-cop-illicit-trade-how-big-in-2006-en.pdf*

⁴ *A report on tobacco taxation by Bloomberg Philanthropies & Bill and Melinda Gates Foundation*

⁵ *Euromonitor international*

⁶ *ERC group, World cigarettes/1, The 2007 Survey India, Suffolk, 2007*

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