

All for one in combating counterfeiters

How long is a train? As you can perhaps imagine, there is no precise answer. When it comes to defining the volume of product piracy in the tobacco industry, it is just as difficult to determine.

Instead, many industry professionals provide “guesstimates” based on that very small part of the illegal business that is disclosed through custom seizures and police actions. Yet everyone knows it is just the tip of the iceberg. Most observers have come to the same conclusion: The illegal business involving tobacco is enormous, to cite an American source: “Recent estimates place worldwide losses to counterfeit at USD 450 billion each year.” When addressing product piracy in the tobacco industry, we are essentially talking about counterfeiting and contraband. Contraband is extremely lucrative as no import duties are paid and no excise taxes – or any taxes for that matter – are collected. Additionally, counterfeiting and contraband are tightly linked. The majority of contraband cigarettes are counterfeit, with Philip Morris suggesting at least 90 per cent being fake. With the massive profits which result from these actions, the criminal syndicates generate enough capital to invest in new, highly professional manufacturing facilities. Consequently, the quality of the fake products improves to

an extent where even experts have problems distinguishing them from the originals.

Alarming growth

Even more frightening than the already enormous size of illegal trade is its growth rate. A recent US government report notes that counterfeiting has “increased dramatically in recent years”, and what was “once a localised industry, concentrated on the copying of high-end designer goods, has now be-

come a massive, sophisticated global business involving the manufacture and sale of counterfeit versions of everything [including] cigarettes...” As there is no precise data, industry experts predict 30 per cent annual growth. Perhaps even more alarming is that there is no indication that this exponential growth will slow down in the near future. To play the devil’s advocate for a moment: it would appear that it is only a matter of time before the industry is completely run by organised crime syndicates. The recent garbage scandal in Naples, Italy, demonstrates that such a scenario can become a reality.

How is it possible to stop these criminal elements in their tracks and save the future of the industry? It will take a bundle of actions on many levels. These actions will have to encompass legal, legislative and educational aspects if they are to be effective. However, for the purpose of space, I think it is important to focus on counter-measures at the technical level or systems which allow for differentiating fakes from originals and tracking the trail of goods through the entire supply chain.

In a world of nearly perfect counterfeits, the identification of originals can be difficult and time-consuming and thus needs to be supported by authentication systems. By adding devices or marks to an original product, which are difficult or impossible to copy or mimic, inspectors will have a reliable tool for authentications at their disposal.

To identify contraband activities, a track and trace capability is required. The backbone of security track and trace systems is the application of bar codes, carrying a unique number for each and every pack and storing this data in a cen-

In essence

- ▶ Estimates place the percentage of contraband counterfeit cigarettes as high as 90 per cent
- ▶ Industry experts predict 30 per cent annual growth in counterfeit cigarettes
- ▶ A global system is more efficient in the war against contraband



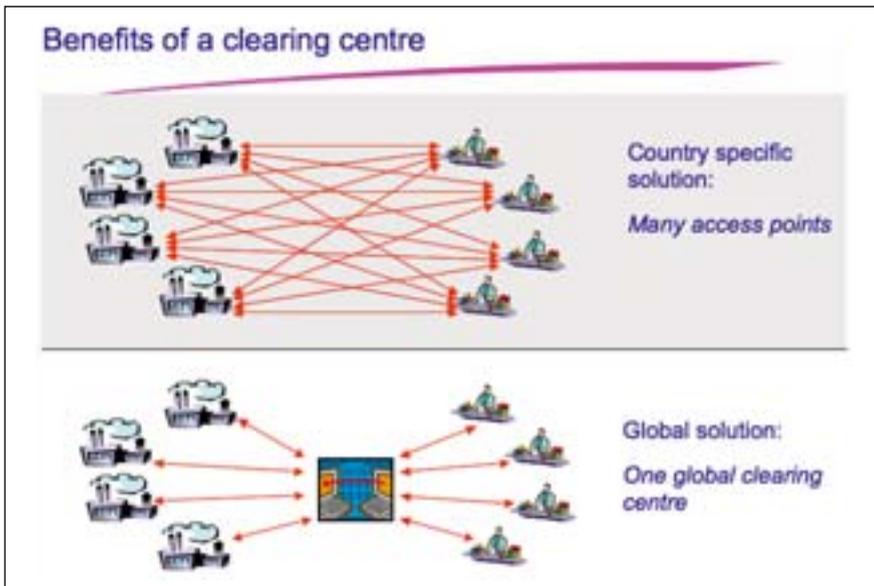
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number which is used for authentication by internal security officers, police and customs officials.

Worst-case scenario

The loss of revenue from all kinds of uncollected taxes is so high that an increasing number of governments will mandate the deployment of authentication and tracking technologies on tobacco products. From a governmental perspective, counterfeiting is a minor problem as financial losses have to be borne by the entire industry. However, contraband heavily affects tax income so the primary focus of any future regulations will be on implementing tracking systems.

tral database. By verifying these numbers along the supply chain, it is possible to differentiate between legally imported goods and contraband. Track

and trace systems have been proven to be highly effective in the cosmetics industry, where almost all high-quality products carry a serialised security

Contraband works best in cross-border trade. To defeat these activities, a global system would be highly beneficial as police forces and customs could also use



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such a system for verification of transit shipments, independently of the specific target markets. Yet country-specific, incompatible local systems would make integrated defence activities very difficult.

The latter scenario - each country having its own system - is not attractive for globally active suppliers in the tobacco industry for two reasons.

Integrated but flexible

With nationally-mandated solutions, specific coding and/or labelling equipment will be required on the production lines. This can be seen in the pharmaceutical industry where, after the packaging process, a multitude of labelling and printing systems have to be integrated into the lines to fulfil all of the various national coding and labelling requirements. Additionally, the data

handling and database infrastructures in the manufacturing plants must be able to support the assorted requirements of the various local solutions, making them expensive and complex.

The tracking systems will be optimised to suppress contraband. Protection against counterfeiting, a manufacturer's key objective, will be of second priority. Thus, the cost of the defence systems will have to be borne by the producers, even if the benefit to them is only minor.

The consequences will be that only limited protection can be established; leaving a comprehensive defence system a dream. Local implementations which have been carried out in Turkey and California prove that this kind of perspective is not fiction. This kind of constellation will result in a limited level of protection, leaving a variety of loop holes for sophisticated crime organisations to exploit and strengthen their

business. Is that really what we want?

A comprehensive global approach is preferable so that the flow of goods can be monitored with a single, standardised tool set. However, such a system has to provide enough flexibility to cover the individual needs of its stakeholders. The outline for this type of infrastructure can be accomplished by defining just two elements.

First, a harmonised coding recommendation based on global ISO/GS1 standards to provide the rationale for coding inner and outer packages needs to be in place. With this kind of regimentation, the universal readability of codes and the interpretation of their content can be ensured.

Guarding against spoofing

Next, the ownership of the serialised data must remain with the manufacturer ▶



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who oversees data management and storage. To provide simple access to all data stored in the databases of the various manufacturers, a single access point in the form of a clearing centre is mandatory. Thus, independent of the product, brand or provenance of a product, the scanned dataset can be sent to this clearing centre which routes the query to the individual server where the data is stored. This is essential not just for the sake of convenience, but also for security reasons. For direct access to various company databases, many different internet addresses would be required making it easy for counterfeiters to set up phony access points. This method is known as "spoofing" in the IT world. However, a single, central dial-in port would be publicly known and thus impossible to spoof.

These types of standardised coding and clearing centres are already in use in Europe by the automotive industry, and the pharmaceutical industry is in the process of realising such a model. In both cases, the respective industry associations have driven or are driving this process. If the tobacco industry is to establish a comparable solution, the initiative should come from the industry itself. There is no incentive for state bodies to outline an inter-governmental model.

The key success factor for anti-piracy infrastructures is a high number of authentications by a multitude of interest groups.



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To have the required high density of authentication checks, the consumer must be involved. To encourage them to make an authentication to determine whether the product is fake, the control processes have to be extremely simple and reliable. This can be achieved by using mobile phones to scan bar codes for product verification. The broad use of mobile phones for reading bar codes is already a standard procedure in Japan. To motivate people to use their mobile phones to scan bar codes, an incentive is beneficial; perhaps a lottery with attractive prizes, such as iPhones or travel vouchers. Benefit programmes would also open up terrific marketing opportunities.

Yet public authentication by mobile phone will only be possible on a broad level if a harmonised coding scheme and a single dial-in point are available. This is necessary to adapt the decoding software in the mobile phones to this task. Otherwise, for every national solution, a specific software version will be required, which is hardly feasible as mobile phone technology is moving forward at a rapid pace. If every country implements its own concept, a comprehensive solution will remain a dream.

Globally organised crime syndicates represent the most powerful and dangerous contrabandists and counterfeiters known. To combat these criminal organisations, some nations have implemented local solutions, which is the wrong approach. The effectiveness of these tracing systems will be very limited, since cross-border use will be difficult and thus ineffective, and user authentication based on mobile phone technology almost impossible.

To have a global, comprehensive and powerful solution, either the leading tobacco manufacturers will need to combine their efforts or an inter-governmental organisation, such as the European Union, must take action. Otherwise, the criminals will have an open playground as no other existing technology offers the potential to provide a comprehensive solution against counterfeiting and contraband. Setting up an internationally effective system is a task that will take at least ten years to accomplish. We must start today to solve tomorrow's problems.

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