

Title:

Definition of the Type of Counterfeiters, Type of Counterfeiting,
and Definition of Defense Options

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Abstract

Brand owners are asking about the overall strategy not behind the package components but behind the counterfeiting and the counterfeiters. Beyond the concepts of “counterfeit-evident” and “counterfeit-resistant” strategies, this paper expands wider than packaging technology expertise to focus on the core aspects of the types of counterfeiters, types of counterfeiting, types of countermeasures to develop a tool to review a holistic, all-encompassing strategy. The first step to an anti-counterfeit strategy is to define the nature of the fraud and of the fraudsters. This is accompanied by a review of the incidents that have occurred to company, brand, competitor product, products within a physical typology or marketing channel, as well as anticipation of the evolving capabilities of the criminals. The definitions and tools presented here assist in selecting anti-counterfeit countermeasures. An extensive literature search and interview found this research to be novel and critical to selecting countermeasures.

Application to “Intellectual Property Theft in the 21st Century”: This research was conducted in direct support of the GAO report GAO-10-423 on methodologies Observations on Efforts to Quantify the Economic Effects of Counterfeit and Pirated Goods. This report was required by the Pro-IP Act in support of the Intellectual Property Enforcement Coordinator (IPEC).

Related Research: Parts of this concept have been presented to the Society for Risk Analysis, the National Center for Food Protection and Defense, at PackExpo (the World’s largest packaging exposition), and included in current A-CAPPP Executive Education Short-Courses. An expanded manuscript is being finalized for submission to the Journal of Packaging Science and Technology.

Background

Several factors have driven this enhanced focus on supply chain security. First, the increasingly global economy both generates and depends on the free flow of people, goods, and information.(DHS, 2007) Second, businesses increasingly depend on efficient supply chain operations.(Closs, Speier, Whipple, & Voss, 2008; Speier, Whipple, Closs, & Voss, 2011) Third, increased terrorist and product security threats result in significant implications for homeland and global security.(Closs & McGarrell, 2004) It is also important to note that “Detection must be considered one of the stages of emergency management.”(Helferich & Cook, 2002)

Healthcare companies have been sued and held liable for injuries from counterfeit products even though they did not manufacture them. Liability based on the failure to act towards the known threat. Claims of liability include:(Anonymous, 2005)

- Failure to implement security features
- Failure to secure the supply chain
- Failure to alert consumers and regulators about the presence of counterfeit products in relevant markets

Methods

The literature was reviewed to assess the current state-of-the-art. The findings were reviewed by industry experts in a series of public presentations. The results were continually modified to incorporate new research or insights

Results and Discussion

Defense Options

Anti-Counterfeit countermeasures include two concepts of components (Overt, Covert, and Forensic) and Functions (Authentication, Track-and-Trace, Market Monitoring, Legal Enforcement, Government Enforcement, Regulation, and Diligence).(Spink, 2011) Consumers have many ways the interact with anti-counterfeit components and functions including warning labels.(Spink, Singh, & Singh, 2011) For the components, defense options assume that the feature is utilized in the supply chain, for instance, that mass-serialized codes can, and are, read. The defense options are: (Spink, Helferich, & Griggs, 2010)

- Mass-Serialization - a unique serial number on every product dose; initially for batch or lot level
- Automatic- Identification – also referred to as machine-readable; includes Radio Frequency Identification Device (RFID)
- Unit Package Feature – a component feature that contributes to anti-counterfeit actions: labels, color shifting inks, holograms, shrink bands, etc.
- Case Feature – a component feature applied to a case
- Pallet – a component feature applied to the pallet

Types of Counterfeiters and Types of Counterfeiting

The type of counterfeiters and type of counterfeiting were developed through literature review and extensive peer-consultation. Of the many types of criminals, includes those that apply to product counterfeiting (Table 1). Also, a holistic and all-encompassing definition of the types of counterfeiters had not been developed presents the conclusions (Table 2).(Spink & Moyer, 2011a) Applying the tool is demonstrated by deconstructing the fraudster and they type of fraud (Figure 1).(Spink & Moyer, 2011a)

Conclusion

The first step to defining and defending a strategic, holistic, all-encompassing anti-counterfeit countermeasure is to define the nature of the fraud and of the fraudsters. This is a review of the incidents that have occurred to company, brand, competitor product, products within a physical typology or marketing channel, as well as anticipation of the evolving capabilities of the criminals. The definitions and tools presented here assist in selecting those countermeasures.

Table 1. Criminal Types and Attributes Applicable to Food Fraud ((Spink & Moyer, 2011b), Adapted from (Hagan, 2010))

| Types of Criminals | Definition |
|---------------------------|---|
| Recreational | Action for entertainment or amusement |
| Occasional | Infrequent, opportunistic |
| Occupational | Incidents at their place of employment either as an individual act or in cahoots with the company |
| Professional | Crime fully finances their lifestyle |
| Ideological | Domestic or international terrorist who commits this act to make an ideological statement or to economically harm an entity |

Table 2. Counterfeiting or Fraud Incident Types (Spink, & Moyer, 2011a)

| Term | Definition | Example | Potential Public Health Threat that May Lead to Illness or Death |
|-----------------------|---|--|---|
| Adulteration | A component of the finished product is fraudulent | Contamination of Heparin | Fraudulent component |
| Tampering | Legitimate product and packaging are used in a fraudulent way | Changed expiry information, product up-labeling, etc. | Fraudulent packaging information |
| Over-run | Legitimate product is made in excess of production agreements | Under-reporting of production | Fraudulent product is distributed outside of regulated or controlled supply chain |
| Theft | Legitimate product is stolen and passed off as legitimately procured | Stolen products are co-mingled with legitimate products. | Fraudulent product is distributed outside of regulated or controlled supply chain |
| Diversion | The sale or distribution of legitimate products outside of intended markets. Also referred to as “parallel trade,” “gray market,” or “product arbitrage.” | Relief product redirected to markets where aid is not required | Shortages or delays of relief product to needy populations |
| Simulation | Illegitimate product is designed to look like but not exactly copy the legitimate product | “Knock-offs” of popular products not produced with same food safety assurances | Fraudulent product of lesser quality |
| Counterfeiting | All aspects of the fraudulent product and packaging are fully replicated | Copies of popular product not produced with same food safety assurances | Fraudulent product |

Note: In each case, fraudsters may not be following Good Manufacturing Practices (GMPs)

| | | Type of Counterfeiter | | | | |
|------------------------|----------------------|-----------------------|------------|--------------|--------------|-------------|
| | | Recreational | Occasional | Occupational | Professional | Ideological |
| Type of Counterfeiting | Adulteration | | | | | |
| | Tampering | | | | | |
| | Over-Run | | | | | |
| | Theft | | | | | |
| | Diversion | | | | | |
| | Simulation | | | | | |
| | Counterfeiting (IPR) | | | | | |

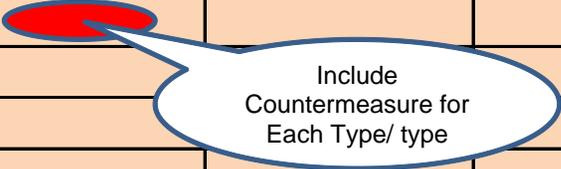


Figure 1. Matrix for the Type of Counterfeiting and Type of Counterfeiters (Spink & Moyer, 2011)

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