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Measuring Product Counterfeiting: Insights from Current Research and Practice

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Estimates of product counterfeiting vary widely in what they measure and when, how, and where they measure it. Yet measurements remain vital both for showing the extent of counterfeiting as well as determining how to address it. A-CAPP Center researchers compiled common practices for measuring counterfeiting, their strengths and drawbacks, and interviewed brand-protection professionals for their insights on the measurement problem.

Product counterfeiting is a large and growing problem but one whose exact extent remains unknown—and often unknowable. Published estimates vary by product, time, location, and definition. Yet measuring counterfeiting is vital both for understanding its extent and determining how best to combat it.

To increase understanding of how best to measure counterfeiting, we compiled and assessed common practices for measuring counterfeiting, including their strengths and drawbacks. We also interviewed brand-protection professionals for their insights on measurement. Our efforts focused on the improper use of a trademark, but stress that one's definition of counterfeiting helps determine the best method to measure it. Given there is no "best" way to measure product counterfeiting, we highlight a number of potential approaches and their strengths and limitations.

Measuring the Unmeasurable

Quantifying the impact of counterfeit goods is challenging because of the lack of available data. Many published estimates do not provide their methods. Even where methods are provided, other limitations prevent a comprehensive estimate.

Reviews of best measurement practices suggest those seeking to measure counterfeits should clarify their unit of analysis and measurement *a priori*. That is, before estimating or measuring counterfeiting, researchers should consider (1) what is the level of estimation and (2) what is the unit of observation.

Identifying the level of estimation is the general focus for determining what is to be estimated, why the estimate is important, and how the estimate is established. The level of estimation narrows the scope for which the unit of observation is examined.

Researchers may first be interested in determining the prevalence of product counterfeiting across time, including how the problem is changing and evolving. In other cases, researchers may want to know more about the prevalence of product counterfeiting by geographic location. Some estimates may attempt to document the number of industry products or brands that are counterfeited. Perhaps the most precise level of counterfeiting would consider individual products that are counterfeited or comparisons across products to determine which is most susceptible to counterfeiting.

Once the level of estimation has been decided, the unit of observation must be established. The specific research question will determine the characteristics of the unit of observation to document. Potential units of observation include offenders, schemes, general consumers, consumers as victims, brands, and products.

Offenders include anyone involved in the production, trafficking, distribution, accounting, or any other role related to the counterfeiting of material goods. The scheme includes situational and organizational elements of the crime and encompasses a discrete operation. General consumers are all those who consume counterfeit products, both knowingly and unknowingly, while consumers as victims are those who have consumed counterfeit goods unknowingly and been harmed in some way by doing so. Brands whose products are illegally copied and reproduced are another victim of counterfeiting, with specific products offering another means for assessing the extent of victimization.

While researchers face unique challenges in estimating product counterfeiting due to the paucity of research in this area and the clandestine nature of the crime, other criminological and criminal-justice research may offer applicable lessons. In fact, most crimes are difficult to measure accurately. Nevertheless, officially reported data and statistics, victimization surveys, and self-report surveys can provide important perspectives on the prevalence of specific types of crime.

Sources of official data on product counterfeiting may include state and federal crime reporting systems, seizure data compiled by customs and border patrol agencies, and other reporting mechanisms such as the Internet Crime Complaint Center. Official statistics exclude victimization experiences not reported to authorities, but victimization surveys can include them. While respondents' lack of knowledge about counterfeiting may hamper victimization surveys, numerous approaches are possible, and some surveys have identified substantial numbers of victims for further analysis. Self-report surveys asking consumers whether they have knowingly purchased a counterfeit product can offer still further insights on this crime.

Several novel and innovative methods may be useful for examining the nature and extent of product counterfeiting. One increasingly used method involves searches of open-source materials such as government databases, court records, law-enforcement reports, news articles, academic journals, private watch groups, and industry and professional associations. As part of our Product Counterfeiting Database, for example, we have identified more than 800 U.S. product-counterfeiting schemes through a review of more than 3,100 documents. Ethnography, snowball sampling, and similar methods have also been used to research populations of interest (such as product counterfeiters) that might otherwise be difficult to access. Script analysis allows researchers to examine how a specific crime is committed and so identify key events and roles in it, while network analysis examines relationships among those engaged in criminal activities. Finally, simulation models combine known data with decision-making models to predict how patterns will emerge and evolve.

How Brand Owners Identify and Measure Counterfeit Goods

To understand how brand owners currently identify counterfeit goods, we interviewed representatives from 16 firms in a wide variety of industries (e.g., apparel, luxury goods, pharmaceuticals, agricultural and veterinary products, computer software). All these firms

operate in other countries in addition to the United States, most have multiple brands, and half have more than 50,000 employees.

All these firms have processes in place to identify counterfeit products, and all but one had counterfeit-identification processes that differentiated between product counterfeiting and other threats to brand integrity. At the same time, only 11 of the 16 track counterfeiting as part of a broader brand-protection strategy. Common activities to identify counterfeit products include monitoring physical and virtual markets and conducting field audits.

All but one of the interviewed firms indicated they measure or attempt to measure which products are counterfeited, using dollar value, market share, number of products, or some other metric. Views on accuracy of these measurements varied.

Brand owners repeatedly highlighted the complications of measurement, from uncertainty about which unit of measurement to use to how the measurement should be made. One of the most common themes regarding measurement challenges was uncertainty, including uncertainty of market conditions, how counterfeits get into the supply chain, and how many counterfeits are produced and sold. One means of reducing uncertainty is ensuring that information obtained about counterfeiting is accurate. To measure counterfeiting effectively, brand owners need information about the number of counterfeits that have been identified. These numbers are not always easy to acquire for firms with sectors across different parts of the supply chain. Often the information is not available.

Multinational companies may have unique challenges in obtaining information on counterfeits. Navigating the laws, customs, and practices of different countries can be complex. Differences by region underscore the importance of developing positive partnerships with law enforcement, but this may not be easily done everywhere.

Technology can help identify and reduce counterfeiting, but it has also helped counterfeiters carry out their operations. As one interviewee said, "It's easier to catch the stupid guys, the ones you obviously know by looking at packaging. [But there] are the guys that are difficult [to capture] because they have the capability to make quality products." Another said, "Almost anybody could be a product counterfeiter. You can now sell products on Instagram, on Facebook. You don't even have to have as formal of a platform as a standalone website."

Many brand owners recognize the value of examining whole markets, including their supply chains, to better understand their network connections and how counterfeits reach the marketplace. One noted efforts "to follow the product depending on where we hit it in the stream, either upstream to the manufacturer or downstream to the people who are distributing it, to protect the largest possible pool of" consumers.

Several interviewees stressed the need for accurate measurements to ensure adequate resources and cooperation to combat the problem. One said, 'I think the best thing we could be from a business perspective would be to identify what the financial threat would be" from counterfeits. Another noted, "One thing we've always asked about from our senior management, from our business leaders, is how is this affecting the business? What does this look like in terms of lost sales?"

Several emphasized the need for cooperation with other firms and law enforcement, while stressing best practices may be industry-specific. Such cooperation could also boost consumer awareness and recognition and thereby measurement of the problem. Others noted the need for collaboration with academics and brand-owner proactivity. As

one brand owner summarized the challenge as "the continuous evolution of counterfeiters. And innovation. Every time we think we know what they are doing, they are smarter and they keep changing."

Conclusions and Future Lessons

While nearly all the companies that we interviewed are able to identify counterfeits of their products, this ability does not necessarily translate into the ability to estimate the extent of counterfeiting. These companies, as multinational firms, have particular difficulty in assessing the extent of counterfeits of their products.

Multiple indicators can help triangulate an estimate, and one brand owner reported using eight parameters to measure counterfeiting prevalence. Yet, as research on commonly used indicators shows, there are several barriers to developing broader estimates of counterfeiting, including the lack of shared information and lack of understanding of victimization. Several methods used elsewhere in criminal justice may better help in understanding counterfeiting—especially when the level of estimation and unit of analysis are specifically articulated and consistent in the estimation procedures.

The Michigan State University Center for Anti-Counterfeiting and Product Protection (A-CAPP) is the first and preeminent academic body focusing on the complex global issues of anti-counterfeiting and protection of all products, across all industries, and in all markets, and on strategies to effectively detect, deter, and respond to the crime. Linking industry, government, academic, and other stakeholders through interdisciplinary and translational research, education, and outreach, the A-CAPP Center serves as an international hub for evidence-based anti-counterfeit strategy. For more information and opportunities to partner, contact Dr. Jeremy Wilson, Director of the A-CAPP Center, at (517)432-2204 or jwilson@msu.edu. Additional information can also be found at www.a-capp.msu.edu.