

# The analysis of counterfeits and their impact on countries' development

Tram Nguyen<sup>1\*</sup>, Tang Li<sup>2</sup>

<sup>1</sup>IP Paralegal at Gottlieb, Rackman & Reisman,  
270 Madison Ave, New York City, New York State, United States

<sup>2</sup>Senior Voip Infrastructure Engineer,  
570 Washington Boulevard, Jersey City, New York State, United States

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## **Abstract:**

While the wealthy world hides its use of counterfeit, it is a part of a million people's everyday life or a survival mechanism in underdeveloped nations. Counterfeiting brings in bad costs at different levels in different fields, but the terrible impact has spread in all directions. Counterfeiting severely harms the consumers' health and, from there, affects the state of health and the function of a country... The community has habituated to living with counterfeits, and the effects are mostly ignored. Detecting counterfeits is difficult since the image is never straightforward and getting data to bring the awful effect to light is thus more difficult. Fighting counterfeiting necessitates governments enacting effective anti-counterfeit regulations, providing sufficient training to detect counterfeit items, and improving public awareness. Recently, thorough information regarding counterfeiting in many countries was gathered with the assistance of international organisations. From there, the unthinkable impact of counterfeiting on several countries, including Vietnam, became clear. And, as you can see, we are living in the so-called "The era of counterfeit".

**Keywords:** counterfeit, damage, economic impact, norm.

**Classification number:** 6

## **1. Introduction**

The term "counterfeit" can be widely defined as imitating anything legitimate with the goal of stealing, destroying, or replacing the original for use in unlawful activities or otherwise deceiving persons into believing that the imitation is of equal or higher value than the genuine.

It is used as a clarifying noun when paired with additional terms such as counterfeit document, counterfeit product, counterfeit culture, or counterfeit commodities. Before 2020, counterfeits were widespread yet invisible.

Since 2020, COVID-19 has provided a chance for Intellectual Property (IP) to rise significantly. The strong acknowledgement and protection of IP lead to the awareness of counterfeiting and its effect.

The Organization for Economic Cooperation and Development (OECD) stated: "Trade in counterfeit and pirated goods is a major challenge in an innovation-driven global economy. These practices negatively affect the sales and profits of affected firms while also having adverse revenue, economic, health, safety and security effects for governments, businesses and consumers.

\*Corresponding author: Email: tramnguyenIP@outlook.com

Organised criminal groups play an increasingly important role in these activities by benefiting significantly from profitable counterfeiting and piracy operations” [1].

On this front, the OECD and the EU Intellectual Property Office (EUIPO) collaborated to show policymakers how counterfeit and pirated trade scales have harmed their economies. Counterfeit and pirated goods accounted for up to 2.5 per cent of global trade in 2013, amounting to 461 billion USD - a heinous sum of money. In the same year, the EU reported that counterfeit and pirated items accounted for up to 5% of imports, totalling 116 billion USD (85 billion EUR).

Losing money sounds bad enough, but steadily losing a hundred thousand jobs is equally scary. According to statistics provided by Statista, in 2020, 300.000 jobs were lost due to counterfeiting in the US alone. According to another number provided by International Chamber of Commerce, experts projected net job losses of 4.2 to 5.4 million worldwide by 2022.

On 29 September 2016, the EUIPO stated that fake medicines cost the EU 10.2 billion euros every year, and 37.700 jobs are lost across the pharmaceutical sector in the EU. Reports and accompanying data have shown the enormous impact of counterfeiting. Those numbers themselves should strike a wake-up call in consumers around the world. However, understanding counterfeit products in developing countries still needs to improve. People often mention counterfeit as fake clothes despite their presence in all shapes and sizes.

Furthermore, do the above-identified reports alert about counterfeit clothes only? Is there anything else under the umbrella of “counterfeit”?

## **2. Everything can be counterfeit**

The most straightforward example of counterfeit in Vietnam is fashion items with luxury brand logos, for instance, Dior, Chanel, or Hermes, which can

be sold at a much lower price than their authentic counterparts. This example is popular with people but is not related to their benefit; therefore, it does not ring an alarm in their heads. Furthermore, if a person does not see it as a severe problem, they do not fight against it.

However, what if now, they are enlightened with the information that Everything can be counterfeit? Will they think twice about keeping counterfeit as part of their lives or their norm?

“Fake products can be found in a large and growing number of industries, such as common consumer goods (footwear, cosmetics, toys), business-to-business products (spare parts or chemicals), IT goods (phones, batteries) and luxury items (fashion apparel, deluxe watches). Importantly, many fake goods, particularly pharmaceuticals, food and drink, and medical equipment, can pose serious negative health and safety risks” [1].

Counterfeits in some industries directly put consumers at serious health risks like fake foods, fake tobacco, fake tobacco substitute, fake beverages, and fake pharmaceutical products.

On 19 January 2020, Blake Williams, Mollie Phelps and James Cox, all from Aveley, Essex, UK charged with selling counterfeit goods (Tobacco). The case contributed to the piled-up crime of counterfeit tobacco in the UK. UK authority stated that “A major supplier of dangerous fake tobacco across Essex and East London has been prosecuted and convicted. If this gang had continued its criminality, the loss to HM Revenue and Customs would have been significant. The tobacco was poor quality and smelled of white vinegar, added by the criminals as an anti-mould agent. Fake tobacco often contains other dangerous elements, including asbestos and rat droppings. The supply of illicit tobacco costs the UK around £2.5 billion a year - money that could be used to fund vital public services” [2].

The US also faced counterfeit drugs despite having strict drug regulations and frequent quality auditing. The New York city-based Center for Medicine in the Public Interest once estimated that the global trade in fake pharmaceuticals - including treatments for malaria, tuberculosis and AIDS - would reach \$75 billion a year in 2010.

US Patent and Trademark Office stated, "Counterfeit medications are deliberately and fraudulently mislabeled. Their quality is unpredictable because they might be made with the correct formulations, with the wrong formulations, without the active ingredients, with insufficient amounts of the active ingredients, or any combination of the aforementioned. All counterfeit drugs are 100% illegal, whether they are "harmless" or not. It is a criminal offence to manufacture, process, pack, or otherwise distribute counterfeit pharmaceuticals or medical devices" [3].

As the world's population have multiplied, humans have faced severe illnesses and diseases. As patients have a strong demand for drugs and medical devices, counterfeiters take advantage of the situation to counterfeit traffic drugs. The Food and Drug Administration took 130 enforcement

actions against fake medication rings in the US from 2016 through 2021. These counterfeiting operations produced tens of millions of pills, approximately 1,000 kilograms (2,200 pounds) of active ingredient powder that could be turned into pills. The Food and Drug Administration also estimated that there are 11,000 rogue pharmacies selling drugs online, where 64,6% of the counterfeit products were sold [4].

In Vietnam, one recent case shook the public about how fake drugs intertwine in Vietnamese people's life without people knowing: Truong Quoc Cuong, 59 years old, head of Vietnam's drugs and cosmetics management in 2021, was arrested and prosecuted as he permitted a local company to import over 54 billion VND (USD 2.38 million) worth of fake medicine for domestic sale.

In this case, there were seven types of counterfeit medicine, which were Extrafovir; Kaderox-250; Kafotax-1000; MGP Axinex-1000, MGP Mosinase-625, H2K Levofloxacin and H2K Ciprofloxacin, disguised under cover of production by a fraud company called Health 2000 Canada, which did not own any drug factory in any location. The investigation showed that 2,4 million fake boxes of these drugs were sold to hospitals,



Fig. 1. Image of counterfeit drugs: Which is fake and real? Can you distinguish?

pharmacies, and pharmaceutical companies in Vietnam and then delivered to citizens in need. Consuming counterfeit drugs poses a grave risk to buyers' health as the fake medicines can affect the body immediately and create severe allergies or life-threatening reactions [5].

Furthermore, in the same year of this case, 2021, customs officers at Huu Nghi border gate in Lang Son province, Vietnam, uncovered fake goods and narcotics in more than 90 cargo containers. All counterfeit items were seized, but they were only a fraction of counterfeit global trade [6].

Not just adults, but even children, are victims of counterfeiting. For youngsters, there are counterfeited traditional and electronic toys. These toys are offered under the same or similar well-known trademarks to consumers, such as Lego, Mattel, and Nintendo. Because counterfeited toys are of poor quality and contain hazardous materials, they pose severe health and safety dangers to little children. Counterfeit toys can cause skin infection, choking, and bursting. Fake electronic toys, particularly video game items, are on the rise as inauthentic suppliers from China sell phoney video games to meet the demand for owning video games at very cheap rates.

"Nintendo, the largest producer of video game products, claims that China, Taipei and Hong Kong (China) are the largest sources of counterfeit video games in the world. Trade-in pirated software is said to be carried out through cartels with connections in all three countries and the United States. The operations of these cartels cost \$800 million in losses to the US market for Nintendo in 1996 (Reuters News Service, 1990-97)" - OECD survey quoted [7].

Two main areas of counterfeit toys are China and Turkey, as factories of the largest toy companies in the world are located here. Genuine and fake products are produced at the exact location and, from there, are shipped worldwide on different

complex routes, making them hard to distinguish and track.

Aircraft component counterfeiting is another concern. An ordinary person would find it difficult to believe that part of the plane they use to travel is fake. Nevertheless, it is a pressing issue that airlines are facing. Washers, bolts, nuts and screws made by small companies worldwide must go through a quality control unit under local governments' supervision. Yet, somehow, the fake parts of Aircraft have found different routes to merge into the supply chain, and then these counterfeit parts are put into the tiny aeroplane or Boeing.

"Although very stringent controls exist for the supply of spare aircraft parts, there have been some incidents of airplane crashes caused by fake components. While a genuine nut is costly to produce and may sell for US\$400, a counterfeit can be manufactured for a fraction of the amount and sold on the black market for a high profit. The black market for aircraft parts in the United States is virtually unregulated and includes more than 5000 brokers (Jackson,1994)" [8].

Besides counterfeit tangible goods, there is bogus IP.

Counterfeiting and trademark infringement: Counterfeit trademarks happen when products are sold using words, logos, slogans, or any sign similar or identical to the registered trademark. The goods carrying counterfeit trademarks must be used in the course of trade and without the consent of the trademark proprietor to be considered fake trademarks. Therefore, counterfeit trademarks are often intertwined with trademark infringement.

Copyright piracy: TRIPS defined copyright piracy as any goods which are copies made without the consent of the right holder in the country of production and which are made directly or indirectly from an article, where the making of that copy would have constituted an infringement

of a copyright or a related right under the law of the country of importation. Copyright piracy always carries copyright infringement. However, not all infringement acts are piracy. Piracy of copyright work takes away all profit of the original work, and it must be a duplicate of the original. Piracy happens in these categories of copyright products: DVDs and CDs, Digital downloads, Photographs, Broadcasts of sporting events, Books or Journals, and Computer programs.

As the volume of world trade has risen significantly in recent years, so does the volume of counterfeit. Counterfeit issues appear in multiple primary profitable industries of the world economy as well as create harm to the consumers.

So why do people still choose to buy and use counterfeit?

### **3. Reasons for the rising of counterfeit**

To the authors' surprise, most people acknowledged that they have bought and used counterfeit and seem likely to continue to do so. After all the harm counterfeiting items can cause, counterfeiting remains part of living culture in many countries, especially the developing world. So why do they choose to do what they do?

*First*, because the counterfeit is cheap, the cost of buying a counterfeit product is a fraction compared to the price of an authentic one. The financial reason drive those who favour low-price tags and do not attach to the brand, to buy counterfeit products.

Genuine Yves Saint Laurent handbags (also known as Saint Laurent or YSL) averagely sell for \$1,000 to \$3,000, but with a short click on eBay, consumers can get similar counterfeited ones for as low as \$10. To avoid direct trouble, the Chinese factory replaced the classic "YSL" logo with the "Y8L" logo, but through the shape, patent, and style, most consumers know that they are buying a fake version of the Yves Saint Laurent handbag.

Also, Genuine Hermes Birkins sell in the store from \$10,000 to \$150,000, with a typical Birkin handbag costing above \$25,000, but through a different channel, a fake one can be bought for \$50 - one-third of the price of the ticket to New York Musical Broadway Show.

Another well-known example that must be listed is Gucci. On average, owning an authentic Gucci bag costs buyers \$1000 - \$15000. However, consumers can own a similar one for \$20 and still fool people as the fake looks just like the real one.

*Second*, many strongly need to keep up with the current fashion trend. They don't mind buying counterfeit as long as they can be rewarded for catching up with the trend and impersonating the star. They are unaware that the picture conveyed by a fraudulent product is wrong. They will, however, happily acquire counterfeit things by focusing on their imagination. Significant investments are unavoidable when a person decides to follow and regularly catch up with the trend, especially in fashion. Such buying behavior dramatically follows the latest fashion trends set by designers and celebrities who wear authentic clothes; these products are too exorbitant for an average individual. For example, in the summer collection 2022 of Dolce & Gabbana, a twill shirt costs around \$1,500 to \$2,000. The price tag does not match the average salary of an ordinary American.

In developing countries, pursuing using authentic items is considered financial suicide. So, to show the trendy vibe, people make friends with counterfeit items. Once the mindset has been set that way, many individuals start to expand the range of counterfeit products, from clothing to many other things, including prescription drugs.

*Third*, some groups do not care if the items are fake or real. However, a small group of people do not know that they are buying counterfeit goods - although, with the popularity of news and social media, the percentage of this group remains very

low. For example, “58.5% of counterfeit and pirated products traded worldwide in 2016 were sold to consumers who knew they were buying fake products, with the remaining share purchased unwittingly. The share of fakes destined for secondary markets varies significantly by sector, with relatively low values for products directly threatening consumer health and safety (e.g. 31.3% for pharmaceuticals) and high value for luxury products (e.g. 65.4% for fake watches)” [8].

*The fourth* reason links to law enforcement in developing countries where businesses lack the use of anti-counterfeiting technologies due to lacking money and necessary resources. Implementing product authentication using different ways, such as counterfeit QR codes or NFC tags or cooperating due diligence auditing methods, requires a reasonable budget, available human resources, and accessible education - which many countries do not have.

Weak IP law and a nonfunctional system of monitoring the supply chain are other reasons for counterfeit floods in the country and integrate deep into people’s day-to-day life. One example is Russia. “Russia has been on the Special 301 Priority Watch List since 1997. Russia’s copyright piracy problem remains one of the most serious of any country in the world. According to the IIPA, piracy rates in Russia for most sectors were estimated at around 80% in 2004, and losses exceeded \$1.7 billion. In the past few years, there has been an explosion in the growth of illegal optical media disc plants run by organized crime syndicates with widespread distribution channels. Russia has also developed a serious online piracy problem, as exemplified by offering pirated materials on multiple websites”[9]. However, recently, Russia has taken necessary action to fight piracy and build a better system to watch counterfeits.

*The last* reason may exist only in this and upcoming centuries as it intertwines with the

significant development of one type of trade channel - eCommerce, which has contributed to large volumes of low-value, small packages. eCommerce has no border. Nowadays, scanning billions of small packages requires humans’ hard work combined with advanced technology. Often, small packets flow in the country through all sizes of logistic companies. However, unfortunately, many of them contained counterfeit products.

In 2022, the US customs border seized 17,001 packages through Airline Express Logistics Service, 6,886 small packages through Post Office, and 1993 cargo containing fake items [10].

These small shipments contain counterfeit goods with the same health, safety, and economic security risks as large, containerized shipments. And not only the US but governments of many other countries also are running projects to scan and seize packages or cargo purchased through eCommerce.

#### **4. Protections again counterfeiting**

With the severe threat from counterfeiting as it has grown from a \$30B trade problem in the 1980s to exceed \$3 trillion in 2022, more and more companies and governments are looking deep into multiple ways to fight to counterfeit.

Companies are forming a structured and systematic series of regulations regarding anti-counterfeiting. Besides recurringly using Trade Secret in the method of marking products and paying serious attention to advertising the company’s Trademark to establish goodwill, companies also public their effort to fight counterfeiting through media, which shows the expected and positive impact on their consumers as the consumers choose to buy directly with the retail stores than unknown sources.

Companies also cooperate with government agencies and Non-Profit Organizations (NGOs) to develop a due diligence process, invent anti-

counterfeiting technology, and make proper labelling methods, to exempt the products from future loss in counterfeiting significantly.

Many beauty device technology companies in Japan, like Yaman and Zeus, developed anti-counterfeiting black cards, which store unique and authentic numbers for each device their factory produced. The black card is used as an ID for the item and shows some effectiveness.

In the optical field, the hologram is used to detect counterfeits. This light technology works as a detective when it allows a “two- or three-dimensional image to be recorded on a flat surface as a micro-relief diffraction pattern” [7].

In the electronic field, smart cards are widely accepted as anti-counterfeiting devices. The card is embedded into the computer chip to level up security. Alternatively, in the video or software field, the encrypted codes are often tagged deep in the product to distinguish the copied version from the original one; lower the video quality or make the software unable to work as expected.

In chemical technologies, the photochromic (or light-reactive) and thermochromic (or heat-reactive) inks are often counted as the most productive way to fight counterfeit. These types of ink will be put on the label, package, or product itself. In addition, these types of inks generally are invisible to human eyes but can be detected by machines - making them more reliable tools for discovering and disqualifying the copied version.

Networking and collaborating are great ways to strengthen and fight as a group. A large number of national anti-counterfeiting organisations worldwide are listed in Table 1. Most of these organizations work directly with their government but also support other countries in the neighboring regions. Recently, many government agencies in different countries have taken the matter into their hand as they start to build tools and a database

to measure the impact of counterfeiting on their land. These government associations also provide advanced training to customs officers regarding detecting and handling counterfeited items.

**Table 1. List of national anti-counterfeiting organizations around the world.**

Base	Organisation	Acronym
Bangladesh	Anti-Counterfeit Association	
Belgium	Anti-Counterfeit Association	BACA
France	Comité Colbert (luxury goods)	
France	Union des Fabricants	
Germany	Anti-Piracy Organisation	VBP
Hungary	Brand Protection Association	BPA
Italy	Anti-Counterfeiting Advisory Group	
Italy	International Anti-Counterfeiting Committee	COLC
Japan	Customs IP Information Centre	CIPIC
Korea	Korean IP Office	KIPO
Netherlands	Anti-Counterfeiting Foundation	
Philippines	COMPACT	
Philippines	The IP Association	IPA
Spain	ANDEMA	
Sweden	Anti-Counterfeiting Group	ACG
Thailand	Anti-Counterfeiting Committee	MOEA
United Kingdom	Anti-Counterfeiting Group	ACG
United States	International Anti-Counterfeiting Coalition	IACC
United Kingdom/France	Counterfeiting Intelligence Bureau	CIB

Source image: <https://www.oecd.org>.

Also, many formed and active working associations exist in the private industry listed in Table 2 below. Some build educational material, courses, or channels to educate people about counterfeiting; some associations lobby to create anti-counterfeiting laws. Even though pursuing different methods in fighting counterfeits, they all research, gather and frequently publish data regarding the counterfeit and its impact on multi aspects of human life.

**Table 2. List of anti-counterfeiting associations in specific fields.**

Product	Organisation	Acronym	Base
Software	Business Software Alliance	BSA	United States
General	European Brands Association	AIM	Belgium
Audio films	International Federation of Film Producers	FIAPF	France
Musical recordings	International Federation of the Phonographic Industry	IFPI	United States
Copyrights	International Intellectual Property Alliance	IIPA	United States
Spirits	International Federation of Spirit Producers		Hong Kong (China)
Motion pictures	Motion Picture Association	MPA	United States
Watches	Swiss Watch Federation		Switzerland
Toys	Toy Industries of Europe	TIE	Brussels

Source image: <https://www.oecd.org>.

Furthermore, consumer education remains the most effective way to fight to counterfeit. The 2019 International Trademark Association (INTA) study showed that 74% of Gen Z respondents think buying genuine products is essential. Governments and associations worldwide have built many

campaigns to educate consumers, especially young consumers about the importance of trademarks, brands, and the dangers of counterfeit products. For example, the National Geographic Society runs yearly Campaigns Against Counterfeiting and Piracy for students. International Trademark Association also host Unreal Campaign to educate the youth about the danger of counterfeiting.

But, after all: It is impossible to fully protect products from being counterfeited.

Despite this saying, experts and consumers around the world argue that the mentioned above methods are helping with people's awareness and the battle against counterfeiting.

### **5. The counterfeits situation in Vietnam**

As a part of the world and a bridge in international trade channels, Vietnam carries the pain of fighting counterfeits like many other countries.

Market Management Department under the Ministry of Industry and Trade stated that the department dealt with 90,000 counterfeit cases a year, mainly in the form of knock-off beverage products, cigarettes and garments. The department also imposes fines annually worth some VND 400 billion (over \$19 million). In the first quarter of 2014, over 25,000 counterfeit cases were resolved; however, many more went undetected. Eighty percent of counterfeit goods in Vietnam come from China, and recently, there has been a trend of producing fake goods bearing famous Vietnamese brand names. "A facility could make more than 1,000 counterfeit products of a well-known brand, especially since the bag factories of big companies are mainly located in Vietnam," the director of a local bag brand revealed. According to data from The Market Surveillance Department (MSD) under the Ministry of Industry and Trade (MOIT), which is still the core enforcement agency in anti-counterfeiting, it tackled 2,282 cases of IP counterfeits and infringements in 2015. This number leapt to 4,874 cases in 2016.

Solution for consumers in a market filled with counterfeits:

- Scrutinise labels, packaging, and contents: It is very hard to identify fake goods or authentic just by simple looks; however, the tags, packaging and content proved their usefulness when choosing legit products. Consumers should buy from established, reputable sellers for purchases above 500\$, especially in computer devices, electronic devices, and drugs. Besides, consumers should look for broken seals, expired dates, and contents in the package to verify if the goods were modified. Consumers should remember that for drugs or medicine, do not buy from unknown sources. Consumers should contact their doctors for trusted sources for their treatments.

- Avoid buying products without tax charges: Consumers should check their receipts to verify the payment and sale tax charges. Often, the seller of counterfeits won't add tax charges or clarify their finances with authority; therefore, they will take away sale tax charges or hide it internationally. Be aware of the receipt for missed sale tax charges.

- Always seek established, authorised and trusted sellers or retailers: Consumers should buy goods from qualified sellers or retailers. Consumers can find the list of retailers or sellers in the registered directory with the government, like the tax bureau or entrepreneur union. Buying from an unknown vendor can contain a high risk of getting counterfeits.

- Educating your family, friends, and people you know about counterfeits: Not everyone is aware of the harmful impacts of counterfeits on them individually; from the above analysis of the effects of counterfeits on human health, consumers should educate people in their network about counterfeits, how to spot them, and where to buy legit products.

- Don't fall for sale: The consumer should be aware and cautious about the deal "too good to be



true". The sale of 70-90% may involve counterfeit goods.

- Using secure payment or purchasing system: The consumer should use certain payment methods for their transaction and stop if the consumer thinks the purchasing system is unsafe to put information into.

- Educating your children about counterfeiting.

- Report fake goods, suspicious vendors, and spam of goods.

## 6. Solution for brands in the battle of counterfeits

An anti-counterfeiting strategy should be built in close cooperation with law enforcement agencies. Register a trademark with authority; generally, it is the Intellectual Property Office of the countries where brands sell goods; register the trademark with Customs and Border Protection, then spend time teaching these officers about your goods and fakes in the main border or ports. They will be efficient in stopping goods.

In addition, local police are often better and more responsive than larger federal agencies, especially for smaller cases; often, state governments have active consumer protection agencies with law enforcement capabilities, so utilize this force in fighting small counterfeits vendors or self-made factories in a small radius. At the discovery of the counterfeits, brands can request such actions below: "destruction of counterfeits; removal of unlawfully applied marks from goods or packaging; commencement of administrative proceedings and confiscation of counterfeits; and initiation of civil action against the owner of the counterfeits" [11]. Brands can also pursue infringers by filing a petition to initiate administrative, criminal or civil action against imports of counterfeits, IP infringement, or a civil claim against parallel importations.

Suggestion for monitoring counterfeits in the upcoming future:

One evident and trendy way of monitoring and fighting counterfeits is using advanced technology. QR and RFID schemes can use blockchain technology to prevent fraud and counterfeiting. To improve product safety, international pharmaceutical, alcohol, and food industries already use QR codes and RFID tags to track products as they move from factory to consumer. The code or tag is a digital product ID scanned every time the product changes hands so the consumer can trace its origin and history.

Other high-tech methods must be mentioned holographic bubbles, radio-frequency identification chips, and smart tags. They come in handy for tracking and identifying the fake goods as well.

## 7. Conclusions

Counterfeiting brings in bad costs at different levels in different fields, but the terrible impact has spread in all directions.

Counterfeiting creates a direct loss in sales to the right holders of the primary industry where counterfeiting occurs. As a result, billions of dollars yearly are lost to counterfeiting, and millions of jobs are cut down. Besides losing profits, companies are afraid that their goodwill will collapse, especially if these companies want to link themselves to the image of quality brands.

Counterfeiting severely harms the consumers' health and, from there, affects the state of health and the function of a country.

Counterfeiting creates high economic costs for the country where counterfeit takes part in. Loss of sales, loss of tax revenue, loss of jobs, discouraging investment in products, and discouraging invention will happen if a country tolerates counterfeit for a long time.

Removing the norm of using counterfeit entirely from society will be challenging, but it is possible. The longer the delay in government action, the more

profound the norm in the people's mindset, and the expenses needed to spend fighting counterfeits will rise. Understanding the issues will help build a suitable series of actions to fight counterfeiting. And after understanding the problems caused by counterfeiting, it will be time to take action.

### **CRedit author statement**

Tram Nguyen: Conceptualisation, Methodology, Writing - Original draft preparation; Tang Li: Conceptualisation, Editing.

### **COMPETING INTERESTS**

The authors declare that there is no conflict of interest regarding the publication of this article.

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