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Counterfeit Supply Chains

Zeliha Esera*, Bahar Kurtulmusoglu b, Adnan Bicaksizc, Selay Ilgaz Sumerd

a Baskent University, Faculty of Economics and Administrative Sciences, Ankara, 06800, Turkey

Abstract

This paper studies supply chains of counterfeits in Turkey based on insider information from actors in such chains as well as from knowledgeable witnesses. The study depends on semi-structured interviews with actors in or witnesses to such chains. Findings suggest that (i) various forms of counterfeit supply chains exist, (ii) profit margins of counterfeiters seem to be higher than legitimate businesses, (iii) counterfeiters are discouraged if they experience actual or threatened litigation, (iv) law enforcement places higher priority on fighting counterfeits that threaten public health and safety, and (v) counterfeits appear to drive down the prices of legitimate products. Overall, poor action by legitimate businesses against counterfeiters, weak institutional efforts on the part of law enforcement and low consumer awareness appear to foster counterfeit supply chains, or at least contribute to their persistence.

Keywords: Counterfeit, supply chain, Turkey, pirated goods, consumer awareness, profit margin

1. Introduction

Counterfeiting and piracy are illicit businesses in which criminal networks thrive. The items that counterfeiters and pirates produce and distribute are often substandard and can even be dangerous, posing health and safety risks that range from mild to life-threatening. Economy-wide, counterfeiting and piracy undermine innovation, which is key to economic growth. The magnitude and effects of counterfeiting and piracy are of such significance that they compel strong and sustained action from governments, business and consumers. More effective enforcement is critical in this regard, as is the need to build public support to combat the counterfeiting and piracy. Increased cooperation between governments, and with industry, would be beneficial, as would better data collection.

* Zeliha Eser. Tel.: +90-312-123-122.
E-mail address: zeser@baskent.edu.tr
OECD report shows that counterfeit and pirated products are being produced and consumed in virtually all economies, with Asia emerging as the single largest producing region. In recent years, there has been an alarming expansion of the types of products being infringed, from luxury items (such as deluxe watches and designer clothing), to items that have an impact on personal health and safety (such as pharmaceutical products, food and drink, medical equipment, personal care items, toys, tobacco and automotive parts).

Counterfeiting and piracy are huge problems in virtually all countries. They sap profits in almost every industry, and can pose a financial and physical danger to millions of consumers. Even when consumer safety is not threatened, fake or diverted products undermine revenues and reputations, and perpetrate a costly swindle on the public (Byrne, 2007).

Such illicit and illegitimate sales not only sap profits of legitimate businesses and brand owners, but also and more importantly, jeopardize public health, e.g. pirated pharmaceuticals, imitated alcoholic drinks and fake weight loss aids.

While some products are simply inspired by the elite brands they imitate, others are blatant violations of intellectual property laws and registered trademarks. These products known as counterfeits are identical in appearance to the authentic brand and fraudulently display the brand name being copied (Cohen, 2005).

During the past two decades manufacturers, wholesalers, retailers and consumers have experienced increasing problems stemming from the proliferation of counterfeit products in the marketplace. In years past counterfeiting activities were limited to high-priced exclusive merchandise however, the increased activities in international marketing and advancements in technology have permitted counterfeits to penetrate into lower priced intensively distributed, non-durable goods (Byrne, 2007). According to recent estimates, New York City alone lost approximately $350 million and 25000 jobs a year due to the counterfeit market (Geiger-Oneto, 2007).

The nature of counterfeit has changed during the past decade. Counterfeit name brand merchandises have improved in quality, making them more expensive and difficult to distinguish from the real merchandise. Also there is thriving business in counterfeit information products such as software, CDs and CD-ROMs. This type of merchandise is attractive to counterfeiters because it has a high unit value, is relatively easy to duplicate and transport, and prompts high consumer demand (Levy et al., 2009).

Prendergast et al. (2002) offer a comprehensive classification of counterfeits based on the literature, by which they categorize counterfeits into five major categories: (1) counterfeit brands, (2) pirated brands, also known as "non-deceptive fakes", (3) imitation brands or imitators, (4) grey area products, and (5) custom-made copies. However, in this paper refer to all five categories are as "counterfeits" unless otherwise specified.

The main purpose of this research is to examine the phenomenon of counterfeit supply chains in Turkey. In the following sections, firstly, a brief overview on demand and supply side of counterfeit provided, secondly, study method and informants are described. Then findings are presented, finally conclusions and implications are stated.

2. A brief overview on demand and supply side of counterfeit

2.1. Demand side

Works generally deal with either the demand side, or the supply side of the problem. Research on the demand side or consumer end of the counterfeits is abundant. It is more or less established that consumers demand and/or purchase such products for the following reasons:

(1) Brand prestige and attraction for apparel (D'Astous et al., 2001).
(2) Material gain, cheapness (Furnham et al., 2007; Matos et al., 2007; Ang et al., 2001; Harvey et al., 2003; Prendergast et al., 2002).
(3) Self-legitimation and self-justification, such as "everybody buys it" (Eisend et al., 2006).
(4) None or low criminal risk perceived on consumer end (Matos et al., 2007).
(5) Low social risk perceived (Penz et al., 2005).
(6) Ethical diversion such as "it is the counterfeit manufacturer who acts unethically, not me" (Ang et al., 2001).
(7) Improving self image by owning/using brand products (Bloch et al., 1993).
(8) Low education and awareness (Prendergast et al., 2002).
Overall, low price plays an important role in purchase of counterfeits. Consumers with better education may feel uneasy in purchasing such goods, but nevertheless do the purchase by self-justification, or if they tend to perceive that criminal or social risks are low. Consumers with low education and low awareness buy such goods mostly for good value for price paid.

While the market for luxury goods is expanding, a considerable number of consumers abstain from purchasing elite brands, or imitations of such brands, and opt for non-elite brands. While some consumers may choose no-elite brands over elite brands for economic reasons, others may be able to afford elite brands, but want to avoid being perceived as materialistic and therefore choose non-elite brands. Others who could afford authentic elite brands may prefer counterfeits because they enjoy “getting a good deal” (Geiger-Oneto, 2007).

2.2. Supply side

It is the supply side where the core of the counterfeiting problem lies. The U.S. Chamber of Commerce Coalition against Counterfeiting and Piracy (CACP) suggests in its Supply Chain Tool Kit (CACP, 2006) that “… many aspects of the counterfeiting problem are beyond the control of businesses. But one important area over which businesses can exert a large measure of control is the security of their supply chain.” The CACP Supply Chain Tool Kit urges businesses to "improve their internal systems and coordinate with other stakeholders including subcontractors and government authorities."

Casabona (2006) quotes a senior lawyer that "while most brands would like to think the pipeline for their products is a straight shot from an authentic manufacturer through to the customer, the reality is much more complicated." It is also suggested that an increase in low-cost country sourcing leaves supply chains vulnerable to counterfeiters (Barton, 2007).

What makes counterfeiting such an attractive enterprise? According to Frank Crayton of the Recording Industry of America’s anti-pirating unit, counterfeiting is “better than selling drugs because the penalties are not as stiff and the money is just as good (Schneider et al., 1992)."

Products which are counterfeited may have one or more of the following characteristics; heavily advertised; widely distributed; limited supply; prestige; strong consumer brand affiliation; and technologically advanced (Schneider et al., 1992; Bloch et al., 1993). Due to the advances in technology and availability it has become easier to produce counterfeit products (Field, 2000).

The management of the supply chain is only becoming more complex with the globalization of the industry and the rise of internet based technology (Jarvis, 2005). Ernst & Young together with the Economist Intelligence Unit, conducted a survey of 225 pharmaceutical industry executives to determine how companies are dealing with the issue of counterfeit. Overall wholesalers expressed the most concern about counterfeit issue (21.7%), with 19.2% of manufacturers surveyed describing the issue as critical compared to 16.7% of pharmacies (Jarvis, 2005).

A good part of the literature and press media coverage, as exemplified above, deals with the counterfeiters that sneak into supply chains of legitimate businesses with a tone that places an important part of the blame on businesses which fail to invest time and effort to improve the security of their supply chains.

Some aspects of the counterfeiting and piracy problem are admittedly beyond businesses' control. Yet many companies could be doing more when it comes to the supply chain. Supply chain security allows most counterfeit or stolen goods to infiltrate legitimate production, wholesale, and retail channels (Byrne, 2007).

While businesses should do their best to secure their legitimate supply chains against infiltrations by counterfeiters, they should nevertheless take into account purely illegitimate supply chains that are fashioned as, so to say, organized crime networks. This paper deals with such chains of counterfeits based on information from insiders or non-participating witnesses.
3. Methodology and data

As no prior research regarding the counterfeit supply chains in Turkey existed, an exploratory study has been conducted. As qualitative research through interviewing is recommended for such study to gain insights into the issue (Cateora et al., 2005), the study depends on semi-structured interviews with actors in or witnesses to such chains. Although the authors believe that the demand and supply side issues are equally important, the focus of the study is on the supply side issues of product counterfeiting.

3.1 The Sample

The research sample has been formed in three steps. First, by reviewing major Turkish daily newspapers in three years, we have examined the news related to counterfeits. During this process, we have tried to identify which industry stood out among others in experiencing counterfeiting problems, which unsurprisingly is the apparel industry. Second, we have had two focus groups each consisting of six people. We have asked focus groups what they know about counterfeits, whether they would buy counterfeits, which counterfeits they would or did buy mostly, and where from they buy them. Specifically, the last question has been very important during the focus group meetings because it has helped us to locate counterfeit supply chain actors whom we could interview for our study. Third, we have inquired from law enforcement authorities that counterfeiting problem is concentrated especially in electronic media (motion-picture, game or music CDs) and textiles. Noting the places where counterfeits are sold, we have made up our sample and conducted interviews with dealers of counterfeits, some of whom have turned out to be not dealers, but merely knowledgeable witnesses. Therefore, we refer to our respondents either as "interviewees" or "informants". We interviewed 16 interviewees. In this study, 16 interviews, each lasting about 30 to 45 minutes were done. Because of the small sample size, a technique of purposive sampling is most appropriate. With a purposive sample, subjects are selected on the basis of specific criteria so that participants share broad similarities (Lincoln et al., 1985).

3.2 Procedure

The interviewers were given a discussion guide and specific instructions how to conduct interviews. Interviewers provided a brief description of the goal of the interview and respondents were first asked to think about in general about the counterfeit products and if they sell counterfeit products or not. If they deal with counterfeits, who is their direct upstream contract and what is their profit margin. The interviewees were instructed to describe their experience about litigation problems and the customer awareness about buying counterfeit products. All interviews were tape recorded and then transcribed. Each respondent’s name and daytime telephone number were recorded for research verification purposes and each respondent was assured of his/her anonymity (i.e. no names were attached to the interviews notes).

As suggested for interviews (Aaker et al., 2001; Churchill et al., 2007), we have used open-ended questions so that respondents could express their views. The semi-structured interview as a form of qualitative research is a powerful tool and is widely used in social research and other fields and is capable of producing rich and valuable data (Punch, 1998). In semi-structured interviews, the goal is to explore a topic more openly and to allow interviewees to express their opinions and ideas in their own words (Esterberg, 2002).

In data analysis, while coding is an important part of qualitative research, open-ended questions pose unique problems to the coding process (Hair et al., 2006). Because attaching codes to the data and generating concepts have important functions in interpreting open-ended questions, in this study we used descriptive coding (interviewee sectors) and topic coding to describe the what topics are being discussed during the interviews. In coding of qualitative data, initially all the key themes or patterns should be identified, and then these key themes or patterns may be coded as individual words or all small chunks of data (Coffey et al., 1996; Miles et al., 1994). This coding process can be thought of as data simplification or reduction (Coffey et al., 1996)

Following this recommended coding process, we have developed a master coding scheme or procedure for the response to each of the open-ended questions posed as research questions. Using this coding scheme, the responses by each interviewee have been coded by the researchers. In addition, the interviewee responses and coding scheme have been given to two researchers (who are not coauthors of the current study) so the responses could be independently coded. These researchers are faculty members in the Business College and familiar with qualitative
research and coding procedures. The coding of the interview responses by all three coders produced similar coding. Specifically, the coding process has shown that all three coders have arrived at identical coding (100% agreement) for all 16 interviews on the questions. These procedures support the accuracy and reliability of our coding of interview responses. Finally, the coding of the responses to the questions was shared with each of the interviewees (respondents) who agreed (100% agreement) with the coding of the responses.

3.3. Interviewees

In a major city of Turkey, 16 actors have been interviewed in the supply chains of various counterfeits; 9 apparel industry, 1 software industry, 1 beverage industry, 1 publishing industry, 3 watch industry, 1 food industry. City names and brand names are not disclosed to ensure confidentiality of interviewees.

4. Findings

It is believed that giving a tabular and condensed indication of information derived from our interviews is the best for presentation purposes as in Table 1 below.

<table>
<thead>
<tr>
<th>Interviewee's business</th>
<th>Sells counterfeits? (yes)</th>
<th>Direct Upstream Contact (yes)</th>
<th>Profit Margin (%)</th>
<th>Litigation problem experienced / scared / avoids known litigants? (yes)</th>
<th>Customer awareness (yes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.1 Apparel retailer</td>
<td>Yes</td>
<td>Manufacturer</td>
<td>40%</td>
<td>Yes – yes – yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No.2 Apparel retailer</td>
<td>Yes</td>
<td>Wholesaler</td>
<td>&gt;20%</td>
<td>No – yes – yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No.3 Apparel retailer</td>
<td>Yes</td>
<td>Wholesaler, sometimes intermediaries</td>
<td>Varies</td>
<td>No – yes – yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No.4 Apparel retailer</td>
<td>Yes</td>
<td>Wholesaler, sometimes intermediaries</td>
<td>50%</td>
<td>No – yes – yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No.5 Apparel retailer</td>
<td>No</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>Yes</td>
</tr>
<tr>
<td>No.6 Apparel retailer</td>
<td>Yes</td>
<td>70% wholesaler 30% manufacturer</td>
<td>30-40%</td>
<td>No – yes – yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No.7 Apparel retailer</td>
<td>Yes</td>
<td>Wholesaler</td>
<td>30%</td>
<td>No – yes – yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No.8 Apparel retailer</td>
<td>Yes</td>
<td>Wholesaler</td>
<td>Varies</td>
<td>No – yes – yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No.9 Apparel wholesaler</td>
<td>No</td>
<td>n.a.</td>
<td>70-80%</td>
<td>n.a.</td>
<td>Yes</td>
</tr>
<tr>
<td>No.10 Software retailer</td>
<td>Yes</td>
<td>Intermediary</td>
<td>20%</td>
<td>No – no – no Dangerous to public health, most dealers now avoid counterfeit beverages</td>
<td>Yes</td>
</tr>
<tr>
<td>No.11 Beverages retailer</td>
<td>No</td>
<td>n.a.</td>
<td>60-70%</td>
<td>Most dealers experience no problem</td>
<td>Yes</td>
</tr>
<tr>
<td>No.12 Publishing house owner (producer)</td>
<td>No</td>
<td>n.a.</td>
<td>n.a.</td>
<td>experience no problem</td>
<td>Yes</td>
</tr>
<tr>
<td>No.13 Watch retailer</td>
<td>Yes</td>
<td>Other retailers Personally brings in from foreign countries</td>
<td>90%-100%</td>
<td>No – no – no</td>
<td>Yes</td>
</tr>
<tr>
<td>No.14 Watch retailer</td>
<td>Yes</td>
<td>Personally brings in from foreign countries</td>
<td>&gt;60%</td>
<td>No – no – no</td>
<td>Yes</td>
</tr>
<tr>
<td>No.15 Watch retailer</td>
<td>Yes</td>
<td>Intermediary</td>
<td>70%</td>
<td>No – no – no Dangerous to public health, most dealers avoid</td>
<td>No</td>
</tr>
<tr>
<td>No.16 Food retailer</td>
<td>No</td>
<td>Intermediary</td>
<td>30-40%</td>
<td>No – no – no Dangerous to public health, most dealers avoid</td>
<td>No</td>
</tr>
<tr>
<td>No.16 Food retailer</td>
<td>No</td>
<td>Intermediary</td>
<td>30-40%</td>
<td>No – no – no Dangerous to public health, most dealers avoid</td>
<td>No</td>
</tr>
</tbody>
</table>
4.1. The supply chain

Findings showed that there are three routes in the supply chain from the manufacturer to the consumer, as summarized in Table 1, column "direct upstream contact", and graphically shown in Figure 1 below. In the supply chain of counterfeits, the top route in Figure 1 is the simplest route that includes one retailer between the manufacturer and the consumer. However, this appears to be a rare occurrence. Among our interviewees there is only one apparel retailer who directly buys from the manufacturer, and another apparel retailer who buys about 30% of his counterfeit volume directly from the manufacturer. Indeed, counterfeit apparel retailers seem to be complaining about the manufacturers' not dealing directly with them. As one puts it "We never meet with the manufacturers. ... It is not possible to meet with the manufacturers. They [manufacturers] work with wholesalers who buy large volumes. Our purchase quantity is large to us, but very small to the manufacturers. They do not take us seriously." Another says that "When we make bulk purchases, we are allowed into the factory (manufacturer's site)." This most direct route, i.e., manufacturer-retailer-consumer, is possibly the route where the least volume of counterfeits flows.

The second route is the mid route in Figure 1 that is manufacturer-wholesaler-retailer-consumer, which has the wholesaler as a major player. This route is most probably where the bulk of counterfeit goods flows. Statements from informants confirm this fact: "We buy from wholesalers from the city C2 ... They [manufacturers] work with wholesalers who buy large volumes" or "We usually buy from the wholesaler in the City C2 ... We are the third hand [in the chain]. The manufacturer sells to the wholesaler, and we buy from the wholesaler", so forth.

This route in the counterfeit supply chain is identical to legitimate supply chains in most products. However, at least among the interviewees, this is the most likely route for counterfeit apparel chains. The counterfeit supply chain may carry some practices of a legal chain to the favor of retailers, such as the return of unsold merchandise. An apparel retailer tells us that "We return those [merchandise] which are not sold."

The bottom route in Figure 1 indicates one or more intermediaries in addition to the mid route. The intermediary function exists in the apparel sector but not as frequently as in other sectors. Two apparel retailers inform us that "Sometimes, somebody buys from the wholesaler and brings [them] to us. Such intermediaries bring the merchandise in bags and show us models. They take orders from us, purchase from the wholesalers and sell us at a certain margin". Interestingly, our interviewees in other sectors, namely software, beverages, food, publishing and watches, obtain almost all counterfeits from some sort of intermediaries, or in one case, directly and personally brings in from foreign countries but again through some intermediary. Or sometimes the software pirates produce the pirated product themselves, not necessarily in bulk. The intermediary appears to be a person or an organized group who most likely does not own a legitimate business in the form of a registered shop or else. It is usually, we believe, an unregistered person not known to legal authorities even as a street vendor. Thus, any retailer who obtains counterfeits from intermediaries cannot be sure that the goods received are "not stolen goods". Where the retailers deal with wholesalers
4.2 Profit margins

Second finding of the study is that profit margins on the counterfeits vary significantly from 20% to 100% by sector, product, preference of the seller, and even the bargaining skills of the customer.

Profit margins for counterfeit apparel retailing are about 20 to 50% varying by location, product and preferences of the sellers, whereas the apparel wholesalers allegedly get a profit margin of 70-80%. An apparel wholesaler who does not deal with counterfeits informs us that "... the lion's share in the profits goes to wholesalers. It is rumored that wholesalers' profit margins are about 70-80%. Stores [retailers] do not earn as much as they did before." Indeed this resounds with the counterfeit apparel retailers complaints above that "manufacturers do not take them seriously." Retailers know very well that if they could get counterfeits directly from the manufacturers, their share of profits will definitely increase several-fold.

Variance in profit margins in counterfeit apparel retailing varies by location in the sense that if the store is located at somewhat affluent part of the city, then they can sell at up to 50% profit margins, where on the contrary, if the retailer is located at a business location accessible to middle and lower income people, then the profits go down as does the sales volume of the counterfeited brands.

Counterfeit watch retailers claim a margin of 60-70%. This is really an interesting case. One counterfeit watch retailer personally imports the watches by going to the country of origin of counterfeits or an intermediary country. Such dealer is a "serious" entrepreneur: "Profit margin never goes below 60%; I would quit this business if it goes below that. I directly bring in from the foreign countries. I go there, select and pick up and bring in. There is a risk, therefore I should earn well."

A retailer of pirated software (including music, motion pictures and games in electronic media) makes a profit of 20%, and seems to be helpless against such low profit margin because the Internet is full of websites providing the pirated stuff at no charge. "Today, many people do not even buy, they download at their homes. Those who buy [the pirated goods] are people who are too lazy to download from the Internet. Therefore we have to sell at extremely low prices. In many websites, you can find such programs free of charge" says our interviewee. There is truth in this description. For example if you are a simple customer and wish to download a motion picture from an Internet site free of charge, you should at least keep your mind and computer occupied for the whole downloading duration. Then the large file of the motion picture occupies certain space in your hard disk. Why all this labor? You can buy that motion picture for 3-4 USD, maybe less at a counterfeit retailer. Indeed if you purchase a couple of motion pictures, they will come at 2 USD each. Food and beverage counterfeiting is a wholly different issue, because it involves public health risks, fatalities in some cases. Counterfeit beverage sellers get a margin of 60-70% whereas counterfeit food sellers get 30-40%.

4.3 Litigation and prosecution

The third significant finding of our study is that any legal action by the legitimate rights holder of any product scares off the actors in the counterfeit supply chain from counterfeiting that specific right holder's brands, but not from the other's, and most possibly, competing brands. Apparel retailers time and again have indicated the certain brand B1 had caused them serious troubles through legal action, although we have never specifically asked for any specific brand in any of the interviews.

One of our interviewees in apparel retailing has been apparently litigated by the attorneys of a certain brand B1. He says "We had a problem with the brand B1. The attorneys of the distributor came to our store. We experienced serious distress. Therefore we do not sell the [counterfeited] products of brands which will cause us trouble no matter what the profit margin is." However, earlier cases of litigation by original brand owners sent waves of uneasiness through counterfeit apparel industry, even to the degree that manufacturers no longer make counterfeits of that brand. Apparel interviewees were most similar to a chorus when saying "We do not experience legal troubles, because we do not sell or directly with the manufacturer, they are at least assured to some extent that the goods received are not stolen property.
legally troublesome products” or "We do not sell troublesome products, for example the brand B1" or "We do not sell troublesome products."

This clearly indicates that actors in the counterfeit supply chains, be it retailers or wholesalers, are sensitive to, and scared of the legal action initiated by original manufacturers, or right holders. Even if the legal process in Turkey moves slowly, or sanctions may not be deterrent (IIPA 2007), any legal action will likely deter blatant counterfeiting. However, the original manufacturers, or rights holders may fail to take action for such reasons that it is not economically worth the effort, or the court process is slow, or legal sanctions are not sufficiently deterrent, or whatsoever. We believe, based on our findings in this study, that even a threat of legal action against the retailer or wholesaler will deter many actors who sell both legal and counterfeit products from selling the counterfeit ones. Any actual initiation of the court action will further deter such actors.

However, apparel industry seems to be unique in litigation activity. It appears that software, publishing, watch retailers are not at all scared, maybe because the original right holders are not as active as those in the apparel industry. On the other hand, beverage and food retailing are subject to action by the police and the public prosecutors due to public health risks involved. Shop owners are also keen to stay away from stolen goods because they may bring trouble upon them sooner than "not stolen counterfeits".

4.4 Customer awareness

Except for the beverages retailer, food retailer and one of the watch retailers, all our interviewees have affirmed that the customers know that they are purchasing counterfeits. In the case of beverages, it appears that even the retailer may not know that the counterfeited product might cause death. As we provide information on fatalities in the section below, a retailer (a restaurant owner) himself drank the counterfeited raki and died along five of his customers in 2005 (see the section below).

In the case of counterfeit foods, customers do not of course know the brand is being counterfeited. Our interviewee in the food retail informs us that "There is counterfeit brand B2 sucuk [a sort of Turkish bacon, a high price food selling at more than 20 USD per kilogram] on the market; for that reason the brand B2 started to lose its market share." Indeed, the customer thinks he is buying the genuine brand B2 sucuk, if he is paying 10 USD per kilo, instead of 20 USD. The customer will be inclined to think that the retail store is making a discount sale or some other sales promotion.

In apparel, software, publishing, and watch retailing, the customers are well aware that they are buying counterfeits. As one apparel retailer puts it, "The shopping center S1 is a well-known location for such issue [counterfeits]. Customers come to this shopping center because they know they can buy counterfeits there." A watch retailer infers that customers must be aware of what they are doing: "They of course know that they are buying counterfeits. We sell a watch of 3,000 dollars at 50 dollars. Is it possible that they not know?"

Overall, there appears to be a well-functioning supply chain in the counterfeits in apparel, software (including music, motion pictures and games in electronic media), and publishing industries, but the supply chain in watches appears to be rather ad hoc. However, the supply chain particularly in counterfeit beverages is mostly shunned as criminal activity, thus seen as distinct from other "harmless" counterfeits.

5. Conclusions and implications

It is clear that the supply side of the counterfeiting represents a larger part of the counterfeiting problem. Weak institutionalization on the part of legitimate businesses and government and legal agencies appears to underlie the persistence of supply chains of counterfeits. Institutions should be strengthened and take strong action, otherwise illegitimate actors and businesses will ultimately drive legitimate businesses out of business.

Various technical, commercial and organizational measures have been suggested to secure products and supply chains against counterfeiting, ranging from product authentication measures to vendor inspections through advanced technologies, from legal action to formation alliances against counterfeiting (Byrne 2007; Kelly 2007; Levy et al. 2009). Contractual tightening of the supply chain can be a part of the solution for the counterfeits. Another part is to extend traceability throughout the system of supply chain (Dutton 2004). Our findings specifically confirm that certain measures do work against counterfeiting, as we have noted above.
In order to avoid counterfeiting, supply chains should build trust. One component of building trust in industry will be from manufacturers to distributors to marketers to develop a cohesive approach to managing the integrity of the supply chain. In other words, “the industry is at a crossroads and it’s a crossroads around public trust.” (Jarvis 2005).

Legitimate actors should make efforts to strengthen the institutional environment by (i) forming alliances and networks to fight counterfeiting, (ii) proposing and adopting rules and form to protect legitimate businesses, (iii) cooperating with and informing law enforcement agencies, (iv) activating sanctioning bodies against counterfeiters, (v) raising awareness of end users, and finally (vi) striving to make the deliberate purchase of counterfeits an offense.

To help fight counterfeiting, firms should first monitor their actual or projected markets for any existence or likelihood of counterfeiting; second, initiate legal action and activate enforcement agencies against counterfeiting; third, review and reset their pricing policies so as to discourage counterfeiting; and finally, adopt strategies of creating inimitable distinction for their products.

Consumers should, on the other hand, decide whether or not to buy counterfeits. They should realize, or be made aware, that counterfeiting in the long run would drive away quality and safe products from the market which would ultimately be flooded with unsafe and low quality products. A conscious consumer should, upon noticing a counterfeit, inform law enforcement authorities, original manufacturers, and his acquaintances, and help raise awareness against counterfeiting.

Press media and civil society organizations also have significant mission in this regard. They should promote campaigns of awareness in ethics and social responsibility. Fighting counterfeiting should be a general effort on the part of legitimate, law-abiding citizens and businesses.

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