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Protecting the Copyrights and Trademark Infringements: An Integrated Model of Anti-Counterfeiting Strategies

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Abstract

Counterfeiting has been becoming a challenge for manufacturers across the nations to protect their originality and genuineness. The purpose of this study is to highlight anti-counterfeiting strategies in order to protect infringement of copyrights and trademark. A case study of the anti-counterfeiting strategies opted by a Pakistani natural product manufacturing company was adopted to highlight the mitigation strategies against its counterfeit products. Drawing on Deterrence theory, current study highlights some of the anti-counterfeit general and specific deterrence strategies. The results of interview unraveled some of the reactive and preventive strategies: maintaining network of incentive-based informers, briefing the consequences, multiple raids, follow-ups and seizures. Findings also suggest that out of reactive and preventive anti-counterfeiting strategies, the reactive ones comprised of legal prosecutions and are more successful in combating counterfeiting activities. Current study poses implications for the counterfeit taskforce and policy makers. The social implication of current study is to highlight some new discoveries of the field to alleviate counterfeiting.

Keywords: Counterfeiting; Deterrence Theory; anti-counterfeiting strategies; infringement; counterfeit task force

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1. Introduction

Manufacturing companies are facing the dilemma of counterfeiting in recent years (Quoquab, Pahlevan, Mohammad, & Thurasamy, 2017; Rullani, Beukel, & De Angelis, 2021). Counterfeit trade is expanding drastically over the years thus consequently causing impairment to manufacturers brand image (Wanat, 2020). Such illegal businesses centered on counterfeiting also posit a negative image of the country across international market (Sanderson, 2004). The imitated products ranged from luxury products with brand value to products of daily use like health supplements, personal care products and food (Koay, 2018).

Counterfeiting is defined as manufacturing of any unauthorized good that is protected in terms of patents, intellectual property rights and copyrights (Cordell & Wongtada, 1996). Counterfeiting is said to be a glimpse of dark marketing (Quach & Thaichon, 2018) and a serious issue in contemporary manufacturing industry according to ICC Counterfeiting Intelligence Bureau. Counterfeiting poses the problem not only for customers regarding safety issues but also for manufacturers in terms of their economic loss (Kedawat, Singh, & Gupta, 2021; Kwok, Ting, Tsang, & Cheung, 2010). Besides financial loss, original manufacturers have to face negative consequences too like brand dilution (Eagle, Kitchen, Rose, & Moyle, 2003; Khalifa & Shukla, 2021; Phau, Teah, & Lee, 2009). Moreover, consumers face health risk regarding the use of food-related counterfeit goods (Moore, Spink, & Lipp, 2012).

According to International Anti-counterfeiting coalition (2014), the global trade in pirated and counterfeit goods has been estimated to be \$1.77 trillion. In Asia, counterfeiting illicit trade sets forth a huge business for fake manufacturers, especially in Pakistan (Abid & Abbasi, 2014). In Pakistan, there are many markets where counterfeited products are widely available, as according to literature developing countries are more prone to face counterfeiting issues (Lybecker, 2007). These counterfeit products range from small-scale consumer goods to large-scale commercial goods like cosmetics, food products, textile and pharmaceutical products etc. End consumers are thus consequently encountered with the hazardous side effects of counterfeit products. In such cases, companies opt some anti-counterfeiting strategies not only to protect their brand image but also to ensure the clearance of fake products for consumers' benefits (Hoecht & Trott, 2014).

In light of general deterrence theory, counterfeit sellers as criminals may be deterred from involving in the illicit trade by increasing the fear of criminal punishment. General deterrence theory is rooted in Beccaria's equation which postulates that greater the certainty, speed, and severity of the legal sanction, the lesser would be -the crime rate (Seigel, 2010). In the context of counterfeiting anti-measures in developing nation like Pakistan, this postulation holds true, whereby, despite the existence of relevant statutes in Pakistan related to copyright, patent, and trademarks, general deterrence is essential to eradicate counterfeiting and seize the manufacturing units.

There has been extant of literature available on demand side of counterfeiting (Koay, 2018; Quoquab et al., 2017), counterfeiting from supplier perspective (Thaichon & Quach, 2016), the darker motives of counterfeiters (Quach & Thaichon, 2018) and alternative view of counterfeiting in terms of its facilitation in product development (Trott & Hoecht, 2007), anti-counterfeiting strategies for global business

(Chaudhry, Zimmerman, Peters, & Cordell, 2009; El-Jardali et al., 2015; Machado, Paiva, & da Silva, 2018; Renata et al., 2018; Shultz & Saporito, 1996). However, there is little evidence about the counterfeit anti-measures opted by domestic companies operating in emerging and developing economies (Machado et al., 2018).

Out of wide range of counterfeiting avenues, this study covers the anti-counterfeiting measures against the illegal business of fake natural food products and beverages. By highlighting some of the local counterfeit cases of a natural food manufacturing company, the current study intends to draw the proactivity of the company against counterfeit acts. In this way, some of the legal enforcement strategies have been unfolded regarding the multiple raids and follow-ups, governmental judicial support through searching, investigating and executing seizure operations. In order to highlight the trend of repeated or some new anti-counterfeiting strategies, this study responds to the call for further research to explore the proactive mitigation strategies developed locally (Machado et al., 2018). This study demonstrates the strategies to reach the factory outlets through counterfeit street vendors so as to eradicate the counterfeit products in the market, as vendors got little attention from researchers in playing an important role between counterfeiters and customers (Stöttinger et al., 2015).

2. Counterfeiting from literature point of view

Since the past two decades, the literature on counterfeiting has been considerably shedding light on various forms of anti-counterfeiting strategies targeted either on broad range of products from low differentiated products to high differentiated products (Shultz & Saporito, 1996) and on specific products like drug counterfeiting (Dekieffer, 2006; El-Jardali et al., 2015; Halabi, 2015), food counterfeiting (Johnson, 2014; Moore et al., 2012; Tam & Yang, 2005; Tsimidou, Ordoudi, Nenadis, & Mourtzinos, 2015), and counterfeiting in luxury brands (Koay Kian-Yeik, 2018). Producers of counterfeit products have various motives like cutting down cost and making illegal profits in the name of branded products (Koay, 2018; Staake, Thiesse, & Fleisch, 2012).

Counterfeiting has been defined in literature in variant angles which involves; (1) unauthorized imitation of an article, literary work or industrial product (Augusto de Matos, Trindade Ituassu, & Vargas Rossi, 2007), (2) low priced imitation of original brand products(Sharma & Chan, 2011), (3) reproduction of genuine and original trademark (McCarthy, Schechter, & Franklyn, 2004), (4) fraudulent activity (Dekieffer, 2006) (5) rational activities of counterfeiters with calculated benefits (Hoecht & Trott, 2014), (6) a product bearing the unauthorized representation of original and authentic manufacturer (Rochester Electronics, 2007). WTO(1994,2011) has also defined counterfeiting as "Unauthorized representation of a registered trademark…"

Counterfeiting has been defined under Section 28 of Pakistan Penal Code as. "Causing one thing to resemble other things; and intending by means of that resemblance to practice deception or knowing it to be likely that deception will thereby be practiced." Thus, if an article is manufactured with the intention of resembling it with another thing, then such deception will deem to be counterfeiting. For the purpose of Pakistan Penal Code, counterfeiting will be established against the offender even if imitation closely resembles the original article, not necessarily the exact match.

In order to align with the requirements of agreements on Related Aspects of Intellectual Property Rights (TRIPs), Pakistan's legislation has been periodically amended like copyright ordinance 1962 has been amended by copyright ordinance 2000. Relevant provisions have also been promulgated into such as the Drugs Act 1976, Federal Investigation Act 1974, the Customs Act 1969, and the Penal Code, in order to reinforce the sanctioning bodies in enforcing IP rights.

2.1 Types of Markets for Counterfeit Products

In order to address the effective anti-counterfeiting strategies, it is, however, important to highlight the counterfeiting types. The market for counterfeit products comprised of two sub-categories; deceptive and non-deceptive market (Haie-Fayle & Hübner, 2007). In deceptive markets, buyers of counterfeit products are unaware of the fact that the articles they are buying are not genuine (Eisend & Schuchert-Güler, 2006), whereas, the consumers in a non-deceptive market tend to actively seek fake and pirated products and are considered to be involved in counterfeit activities (Haie-Fayle & Hübner, 2007). The intent of presenting the counterfeit product in the deceptive market is to deceive the buyer, whereas, the intent of seller in non-deceptive market is not to deceive the buyers (Spink, Moyer, Park, & Heinonen, 2013). Counterfeiting executed in a non-deceptive marketplace can also be described as the disintegration of brand and product (Grossman & Shapiro, 1988).

When consumers are deceived about the originality of products are not aware that they are buying counterfeits, anti-measures are undertaken by focussing on the supply side (Chakraborty, Allred, & Bristol, 1996). Thus, effective anti-counterfeiting strategies are based on the fact about the consumer's purchasing decisions, whether they want fake or genuine products. As the current study is aimed at anti-counterfeiting strategies of food products, so marketplace for counterfeit food products is said to be deceptive.

2.2 Anti-counterfeiting: Preventive and Corrective and Aversive strategies

Research in the field of counterfeiting has been indicating a variety of anti-counterfeiting strategies in order to combat counterfeiting. For the purpose of classification among anti-counterfeiting measures in literature, this paper categorizes the strategies into two types; preventive and corrective strategies. Preventive anti-counterfeiting strategies are those strategies which are undertaken beforehand in the prediction of potential counterfeiting, whereas, corrective strategies are taken after the counterfeiting action been found. Besides, these two strategies, some scholars have identified of doing nothing against counterfeit actions. This action of doing nothing has been named as aversive strategy which means to avoid the counterfeiters and let them upon their actions as taking actions against them would be more costly rather than beneficial for the company. The list of anti-counterfeiting strategies as indicated by scholars is produced in table 2:

Table: 2 Anti-Counterfeiting Strategies from literature

Overview of study	Product/Co	Aversive, Preventive and	Reference
	untry	corrective/Legal prosecution Strategies	
	General/U.S.	Aversive:	(Shultz &
Ten courses of	Α	Do nothing	Saporito,
actions to protect IPR		Preventive:	1996)
infringements have		educate stakeholders, don't despise,	
been proposed		investigation and surveillance, high tech	
		labelling, create a moving target,	
		legislations, coalitions,	
		cede the industry	
Restriction on parallel	Specific:	Preventive:	(Bale, 1998)
trade termed as	Pharmaceuti	Restricting parallel trade	
'international product	cals/Switzerl		
diversion' should be	and		
key elements of			
intellectual property			
regime			
parallel importing	General	Aversive:	(Tan, Lim,
should be tackled	/Singapore	Do nothing in case parallel importer sells	Lee, Tan, &
appropriately by		to less risk aversive customer	Lee, 2016)
considering it as a		Preventive:	
free-rider problem		cutting back promotional effort and/or	
		engage in occasional price promotion	
		Corrective:	
		Price war, scaling down promotional	
		activities, product differentiation, token	
		support provided by manufacturer	

Protecting foreign	General/Chi	Preventive:	(Hung,
IPR owners from	na	Government Actions:	2003)
product counterfeiting		Cooperation between local and central	
n China		governments on crackdown, centralize	
		enforcement authority, cooperate with	
		foreign companies, cooperate with foreign	
		governments, crackdown on corruptive officials	
		Market environmental changes:	
		Increased customer awareness of harm,	
		immorality, increase household income	
		and consumer preference for authentic	
		products, lower prices of authentic	
		products, protective features in patented	
		products	
		Corrective:	
		Government Actions:	
		Crackdown on product manufacturers,	
		crackdown on counterfeit product	
		distributor, crackdown on counterfeit	
		product retailer, crackdown on state-	
		owned organizations, criminalize	
		possession of counterfeit products, severe	
		punishments, tax audits on private	
		operators	
		Market environmental changes:	
		shut down foreign market	
Studied the causes	Chasifia	Dravantiva	(KDMC
	Specific: Information	Preventive:	(KPMG,
of counterfeiting and ts effects on IT	Technology/	Copy-resistant technology, continuous evaluation of anti-counterfeit technologies,	2005)
customers.	London	coordinating with international trade	
Justonicis.	LUTIUUTT	alliances, partnering with international law	
		enforcement agencies, educating internal	
		and external stakeholders, signing product	
		distribution agreement, ongoing monitoring	
		•	
		of distribution streams of counterfeit products, creating internal anticounterfeiting taskforce, deploying robust communication plan, simple means	

of reporting infringements, creating global brand protection function

Corrective:

Enforcement action through civil and criminal remedies

Developed a strategic	Specific:	Corrective:	(Trott 8	&
management	Information	Fight strategy	Hoecht,	
perspective to	technology/	cooperate strategy	2007)	
provide the	UK			
conditions when to				
fight or to cooperate				
and built strategies				
through an alternative				
approach i.e.,				
brighter side of				
product counterfeiting				
Highlighting de facto	General/US	Preventive:	(Keupp,	
strategies employed	Α	Technological specialization, de facto	Beckenbaue	е
in China		secrecy, External guanxi, Internal guanxi,	r, 8	&
		educate the customer	Gassmann,	
			2009)	
gauged the	General/US	Preventive:	(Chaudhry	
capability of several	Α	Participating in activities sponsored by the	et al., 2009))
anti-counterfeiting		International Anti-counterfeiting Coalition		
strategies in		(IACC), heightening the awareness of local		
preserving intellectual		law enforcement officers, developing a		
property rights		company enforcement team, and lobbying		
		for stronger global intellectual property		
		for stronger global intellectual property protection.		
Reviewed the anti-	General/UK		(Hoecht 8	<u></u> &
Reviewed the anti-	General/UK	protection.	(Hoecht 8	
	General/UK	protection. Aversive:	`	
counterfeiting	General/UK	protection. Aversive: do nothing	`	
counterfeiting strategies mentioned	General/UK	protection. Aversive: do nothing Corrective:	`	
counterfeiting strategies mentioned in literature for their	General/UK	protection. Aversive: do nothing Corrective: legislation and legal enforcement	`	

educate and raise awareness of incompany decision-makers, raising consumer awareness with targeted advertising campaigns, high-tech labelling, creating a moving target with continuous product and process innovation, regional or industry-level coalitions of non-domestic firms, internal and external guanxi, withdraw from the high-risk market location.

determined the effectiveness of el Preventive:			location.	
various anti- counterfeiting strategies on the counterfeit buying behavior of the customers Systematically reviewed the Drug/ Interventions gfeetiveness to prevent Drug counterfeiting. Preventive: Product Registration: Private manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: Product rechniques Inspection and surveillance: Routine inspection of manufacturing and	determined the	General/Isra	Preventive:	(Herstein,
counterfeiting strategies on the Negative Strategies: 2015) Sustematically Specific: Corrective: (EI-Jardali et al., 2015) Systematically Specific: Laws and Regulations: Criminal al., 2015) Interventions medicine/ enforcement law, anti-counterfeit specific drug regulation, Penal sanctions, international trade rules Preventive: Product Registration: Private manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection of manufacturing and	effectiveness of	el	Positive strategies:	Drori,
strategies on the counterfeit buying behavior of the customers Systematically Specific: Corrective: (EI-Jardali et reviewed the Drug/ Laws and Regulations: Criminal al., 2015) Interventions medicine/ enforcement law, anti-counterfeit specific drug regulation, Penal sanctions, international trade rules Drug counterfeiting. Preventive: Product Registration: Private manufacturers, government manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and	various anti-		Self-deception campaigns, Justifying	Berger, &
counterfeit buying behavior of the customers Systematically Specific: Corrective: (El-Jardali et reviewed the Drug/ Laws and Regulations: Criminal al., 2015) Interventions medicine/ enforcement law, anti-counterfeit specific drug regulation, Penal sanctions, international trade rules Drug counterfeiting. Preventive: Product Registration: Private manufacturers, government manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and	counterfeiting		campaigns, Internet site, Price/affordability	Barnes,
behavior of the customers Systematically Specific: Corrective: (EI-Jardali et reviewed the Drug/ Laws and Regulations: Criminal al., 2015) Interventions medicine/ enforcement law, anti-counterfeit specific effectiveness to UK drug regulation, Penal sanctions, international trade rules Drug counterfeiting. Preventive: Product Registration: Private manufacturers, government manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and	strategies on the		Negative Strategies:	2015)
Customers Systematically Specific: Corrective: (EI-Jardali et reviewed the Drug/ Laws and Regulations: Criminal al., 2015) Interventions medicine/ enforcement law, anti-counterfeit specific drug regulation, Penal sanctions, international trade rules Drug counterfeiting. Preventive: Product Registration: Private manufacturers, government manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and	counterfeit buying		Education programs , Emotional	
Systematically reviewed the Drug/ Laws and Regulations: Criminal al., 2015) Interventions medicine/ enforcement law, anti-counterfeit specific drug regulation, Penal sanctions, international trade rules Drug counterfeiting. Preventive: Product Registration: Private manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and	behavior of the		campaigns, Fear-provoking campaigns	
Interventions medicine/ enforcement law, anti-counterfeit specific effectiveness to UK drug regulation, Penal sanctions, international trade rules Drug counterfeiting. Preventive: Product Registration: Private manufacturers, government manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and	customers			
Interventions medicine/ enforcement law, anti-counterfeit specific effectiveness to UK drug regulation, Penal sanctions, prevent international trade rules Product Registration: Private manufacturers, government manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and	Systematically	Specific:	Corrective:	(El-Jardali et
effectiveness to UK drug regulation, Penal sanctions, international trade rules Drug counterfeiting. Preventive: Product Registration: Private manufacturers, government manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and	reviewed the	Drug/	Laws and Regulations: Criminal	al., 2015)
prevent Drug counterfeiting. Preventive: Product Registration: Private manufacturers, government manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and	Interventions	medicine/	enforcement law, anti-counterfeit specific	
Drug counterfeiting. Preventive: Product Registration: Private manufacturers, government manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and	effectiveness to	UK	drug regulation, Penal sanctions,	
Product Registration: Private manufacturers, government manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and	prevent		international trade rules	
manufacturers, government manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and	Drug counterfeiting.		Preventive:	
manufacturers, importers, internet Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and			Product Registration: Private	
Licensing of establishments: Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and			manufacturers, government	
Manufacturing sites, distribution channels, import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and			manufacturers, importers, internet	
import, online pharmacies Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and			Licensing of establishments:	
Price control: Evaluation of medicine prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and			Manufacturing sites, distribution channels,	
prices, insurance reimbursement of drugs, increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and			import, online pharmacies	
increased access to affordable drugs Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and			Price control: Evaluation of medicine	
Technological innovation: product authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and			prices, insurance reimbursement of drugs,	
authentification technology, product trace abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and			increased access to affordable drugs	
abilities technology, analytic techniques Inspection and surveillance: Routine inspection of manufacturing and			Technological innovation: product	
Inspection and surveillance: Routine inspection of manufacturing and			authentification technology, product trace	
inspection of manufacturing and			abilities technology, analytic techniques	
· · · · · · · · · · · · · · · · · · ·			Inspection and surveillance: Routine	
distribution channels, quality testing of			inspection of manufacturing and	
			distribution channels, quality testing of	

drug at point of sale, good manufacturing
practices, pharmacovigilance
Awareness and communication: Public
information and awareness, consumer
education and empowerment, training and
capacity building, local and international
collaboration, rapid alert systems

Provided an	Specific:	Preventive:	(Renata et
	-		`
understanding	Medicine/Br	Inter-organizational processes and	al., 2018)
resilience enablers	azil	policies, which are	
role in mitigating		anti-measures and require coordination	
counterfeits in the		among supply	
medicine field.		chain links	
		Intra-organizational processes and	
		policies, which are	
		anti-measures applied only inside the	
		organizations	
		Behavioral, which are anti-measures that	
		influence the	
		behavior of supply chain stakeholders	
		Technology, which includes scientific and	
		technical knowledge	
		and application of technological tools to	
		avoid counterfeiters.	

Source: compiled by authors

Schultz and Saporito (1996) are pioneers in presenting the comprehensive list of anti-counterfeiting strategies for countries that are committed to WTO requirements. Later various scholars have extended their work, thus contributing towards literature as presented in table 2. By reviewing the literature of anti-counterfeiting, it was however revealed that in western nations more focus is on preventive strategies because legal requirements and formalities are understood. On the other hand, besides preventive strategies, the emphasis is also provided on corrective ones in emerging economies due to government's lack of enforcement in order to protect its own IPR laws(Hung, 2003). Owing to this perspective, the current study intends to highlight the feasible strategies: both corrective as well as preventive in the context of Pakistan.

2.2 Local counterfeiting and its combating: Criminal Prosecution under Pakistani Legislative framework

Penalties and Criminal procedures are undertaken for infringement and counterfeiting of the registered trademark through criminal statutes i.e., the Code of Criminal Procedure 1886 and Penal Code, 1860. In order to deter infringement of copyrights, several remedies exist including monetary fines, incarceration, forfeiture, seizure, and destruction of infringing products. The seizure is carried out on the instance of raid or thereafter as soon as possible upon investigation. Forfeiture is ordered after completion of trial and only if guilt is established against the offender. Such criminal matters are dealt by the state in prosecuting the infringer. However, the authentic manufacturing company holding the rights can also preserve its own procedure during such proceedings. Such counseling may range from assisting in examining the witnesses to guiding police or state to adopt feasible procedures to have opted. All criminal proceedings are, however, initiated in the magistrates' court. Appeals are held with the High Court and final appeal to the Supreme Court.

3. Methodology

In the current study, case study methodology has been employed. The criterion for selection of company for this study was that it should face counterfeiting issues at domestic level. In order to conduct the case study, one to three companies are satisfactory depending on the objective of the study (Stuart, McCutcheon, Handfield, McLachlin, & Samson, 2002). Thus having support from Stuart and colleagues' work, one company was chosen for having detailed and in-depth insight into its anti-counterfeiting strategies. The reason of selecting the company facing local counterfeiting of its products is to highlight the instincts of infringements at domestic level, as it is claimed that counterfeiting may exist locally in a particular origin when it is practiced by domestic companies (Machado et al., 2018). In order to get a rich insight of understanding the phenomenon, repeat interviews were conducted with the deputy manager of the legal team to explore the counterfeit cases, actions take against those cases and the strategies opted behind these success stories of reaching the culprits. Repeat interviews provide a deeper understanding of processes and phenomenon that helps the researcher look beyond 'what' to 'how' (Vincent, 2013).

4. Results

In order to demonstrate the effectiveness of anti-counterfeiting strategies opted locally, Qarshi was selected as the reference case. The company is local, with its international presence in Italy, France, and Saudi Arabia etc. It manufactures natural food products and beverages. The main counterfeiting products of company have been its beverage and natural products. Counterfeit sellers tend to enter the remote and suburb areas because of their difficult access by company legal team. The imitated products are thus transferred to unauthorized channels. Total of eighteen counterfeiting cases from the period of 2015-2017 and the corresponding action taken against those cases were discussed by the interviewees which are tabulated in table 3. Further, interviews were conducted with the deputy manager of legal team to reveal important anti-counterfeiting strategies which were in the background of these successful actions taken by the legal team of the company.

Table 1 counterfeit cases at Qarshi Industries

Sr.	Description of Cases	Action Taken
no		
1.	FIR No. 201/15 (10.05.2015) PS	*20 Cartons recovered from supplier, arrested and sent
	Khan Garh District MuzfarGarh.	to Jail after remand.
	QJS.	
2.	FIR No. 376/15 (15.06.2015 PS	*100 QJS Cartons loaded on vans were confiscated &
	Lyton Road Lahore.	bulk recovered from Ware house of Rasheed Traders,
	QJS	3Culprits were arrested and sent to Jail after remand.
		*Owner of Rasheed Trader and Sales Officer got bails;
		all are now facing trial since 2015 till date.
3.	FIR No. 245/15 (08. 07.2015) PS	*Bulk QJS bottles were recovered from Ware house; Two
	Jalal PurJattan District Gujarat.	Culprits were arrested and sent to Jail after remand. Both
	QJS	are facing trial since 2015 till date.
4.	FIR No. 64/16 (30.01.2016) PS	*Bulk QJJ was recovered; Culprit was arrested and sent
	Factory Area Faisalabad.	to Jail after remand.
	QJJ	*Culprit disclosed main supplier Ajmal Traders FSD,
		Police raided and recovered6 QJJ Cartons, and arrested
		3 more Culprits and sent to Jail after remand. All accused
		are facing trial since 2016 till date.
5.	FIR No. 152/16 (21.02.2016)	*Raided at Trader Ghalla MandiMultan, recovered QJJ in
	PSMumtaz A Bad Multan.	bulk quantity, Culprits got bails. AM Legal is in follow up
	QJJ	for trial.
6.	FIR No. 49/16 (29.03.2016)	*Thousand bottles of QarshiBarshasha were recovered
	FIR/ACC, Medicine Market	from Qarshi Medicine Distributor, Lohari, arrested and
	LohoriLahore.	sent to Jail after remand. During investigation he
	Barshasha	disclosed manufacturer.
		*Police raided but source got bail. AM Legal is in follow
		up for trial.
7.	FIR No. 26/16 (03.05.2016)	*35 Cartons were recovered from Trader; Culprit was
	FIA/ACC Abbottabad.	arrested and sent to Jail after remand. AM Legal is in
	QJS	follow up for trial.
8.	FIRNo.142/16(25.05.2016)	*FIA raided at Trader GallaMandi Multan, recovered
	FIA/ACC Multan.	QJS, Culprit was arrested and sent to Jail after remand.
	QJS	AM Legal is in follow up for trial.
9.	FIR No. 900/16 (21.06.2016)	*Police raided along with ZSM Springley with his team. 3
	Factory Area District	Culprits were arrested, sent to Jail after remand. AM
	Sheikhupura.	Legal is in follow up for trial.
	Springley	

10.	FIR No. 232/17 (16.03.2017) PS	*Police raided on factory recovered huge machinery,
	SadarD.I.Khan.	QJS bottles, cartons and raw-material and 5 Culprits
	QJS	including Manufacturer were arrested and sent to Jail
		after remand. After getting Analyst report filed writ
		Petition for the cancellation of bails of Manufacturers in
		DI Khan High Court.
11.	FIR No.387/17 (10.05.2017) PS	*DG Punjab Food Authority and his team with Police
	FerozWalaDist SKP.	raided on two factories manufacturing QJS bottles, labels
	QJS	unit and recovered huge machinery confiscated and
		sealed premises.
		*Same time raided adjacent factory thousand litters
		syrups destroyed, hundreds Cartons were recovered, all
		machinery, stocks were confiscated, sealed premises,
		culprit arrested and sent to Jail after remand. AM Legal
		is in follow up for trial.
12.	FIR No. 271/17 (24.05.2017) FIA,	*FIA raided on Traders and recovered bulk quantity of
	Faisalabad.	QJS, arrested Culprit but realized by Judicial Magistrate
	QJS	FSD, due to political pressure. Legal Department filed to
		suspend orders of JM.AM Legal is in follow up for
		restoration of FIR.
13.	FIR No. 272/17 (24.05.2017) FIA,	*FIA raided on Traders and recovered bulk quantity of
	Faisalabad.	QJS, arrested Culprit but realized by Judicial Magistrate
	A 1A	
	QJS	FSD, due to political pressure. Legal Department filed to
	QJS	suspend orders of JM. AM Legal is in follow up for
		suspend orders of JM. AM Legal is in follow up for restoration of FIR.
14.	FIR No. 348/17 (26.05.2017) PS	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and
14.	FIR No. 348/17 (26.05.2017) PS Manawa Lahore.	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and destroyed thousand litters of syrups, recovered
14.	FIR No. 348/17 (26.05.2017) PS	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and destroyed thousand litters of syrups, recovered hundreds of QJS finish Cartons, raw- material,
14.	FIR No. 348/17 (26.05.2017) PS Manawa Lahore.	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and destroyed thousand litters of syrups, recovered hundreds of QJS finish Cartons, raw- material, machinery, sealed premises, arrested Two Culprits and
14.	FIR No. 348/17 (26.05.2017) PS Manawa Lahore.	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and destroyed thousand litters of syrups, recovered hundreds of QJS finish Cartons, raw- material, machinery, sealed premises, arrested Two Culprits and sent to Jail after remand.
14.	FIR No. 348/17 (26.05.2017) PS Manawa Lahore.	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and destroyed thousand litters of syrups, recovered hundreds of QJS finish Cartons, raw- material, machinery, sealed premises, arrested Two Culprits and
14.	FIR No. 348/17 (26.05.2017) PS Manawa Lahore.	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and destroyed thousand litters of syrups, recovered hundreds of QJS finish Cartons, raw- material, machinery, sealed premises, arrested Two Culprits and sent to Jail after remand. * Arrest of Manufacturers is under process and pending
	FIR No. 348/17 (26.05.2017) PS Manawa Lahore. QJS	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and destroyed thousand litters of syrups, recovered hundreds of QJS finish Cartons, raw- material, machinery, sealed premises, arrested Two Culprits and sent to Jail after remand. * Arrest of Manufacturers is under process and pending in Lahore High Court.
	FIR No. 348/17 (26.05.2017) PS Manawa Lahore. QJS FIR No. 299/17 (29.05.2017) PS	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and destroyed thousand litters of syrups, recovered hundreds of QJS finish Cartons, raw- material, machinery, sealed premises, arrested Two Culprits and sent to Jail after remand. * Arrest of Manufacturers is under process and pending in Lahore High Court. *Police recovered 20 Cartons from Trader GanjMandi
	FIR No. 348/17 (26.05.2017) PS Manawa Lahore. QJS FIR No. 299/17 (29.05.2017) PS GanjMandi Rawalpindi.	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and destroyed thousand litters of syrups, recovered hundreds of QJS finish Cartons, raw- material, machinery, sealed premises, arrested Two Culprits and sent to Jail after remand. * Arrest of Manufacturers is under process and pending in Lahore High Court. *Police recovered 20 Cartons from Trader GanjMandi Rawalpindi, Culprit arrested and sent to Jail after
	FIR No. 348/17 (26.05.2017) PS Manawa Lahore. QJS FIR No. 299/17 (29.05.2017) PS GanjMandi Rawalpindi.	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and destroyed thousand litters of syrups, recovered hundreds of QJS finish Cartons, raw- material, machinery, sealed premises, arrested Two Culprits and sent to Jail after remand. * Arrest of Manufacturers is under process and pending in Lahore High Court. *Police recovered 20 Cartons from Trader GanjMandi Rawalpindi, Culprit arrested and sent to Jail after remand. During investigation he disclosed Manufacturer
	FIR No. 348/17 (26.05.2017) PS Manawa Lahore. QJS FIR No. 299/17 (29.05.2017) PS GanjMandi Rawalpindi.	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and destroyed thousand litters of syrups, recovered hundreds of QJS finish Cartons, raw- material, machinery, sealed premises, arrested Two Culprits and sent to Jail after remand. * Arrest of Manufacturers is under process and pending in Lahore High Court. *Police recovered 20 Cartons from Trader GanjMandi Rawalpindi, Culprit arrested and sent to Jail after remand. During investigation he disclosed Manufacturer Manawa Lahore against home action already been
15.	FIR No. 348/17 (26.05.2017) PS Manawa Lahore. QJS FIR No. 299/17 (29.05.2017) PS GanjMandi Rawalpindi. QJS	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and destroyed thousand litters of syrups, recovered hundreds of QJS finish Cartons, raw- material, machinery, sealed premises, arrested Two Culprits and sent to Jail after remand. * Arrest of Manufacturers is under process and pending in Lahore High Court. *Police recovered 20 Cartons from Trader GanjMandi Rawalpindi, Culprit arrested and sent to Jail after remand. During investigation he disclosed Manufacturer Manawa Lahore against home action already been taken. Trial is in process
15.	FIR No. 348/17 (26.05.2017) PS Manawa Lahore. QJS FIR No. 299/17 (29.05.2017) PS GanjMandi Rawalpindi. QJS FIR No. 255/17 (21.06.2017) PS	suspend orders of JM. AM Legal is in follow up for restoration of FIR. *PFA & Police raided at Manufacturing unit and destroyed thousand litters of syrups, recovered hundreds of QJS finish Cartons, raw- material, machinery, sealed premises, arrested Two Culprits and sent to Jail after remand. * Arrest of Manufacturers is under process and pending in Lahore High Court. *Police recovered 20 Cartons from Trader GanjMandi Rawalpindi, Culprit arrested and sent to Jail after remand. During investigation he disclosed Manufacturer Manawa Lahore against home action already been taken. Trial is in process *Police recovered 30 Cartons from Ware house

		*During investigation he disclosed whole Seller and
		Supplier; all were arrested and sent to Jail after remand.
		*Further investigated and arrested manufacturer from
		Gujranwala. Recovered material and sent to Jail after
		remand.
17.	FIR No. 492/17 (17.10.2017) PS	*4 Cartons of QJJ were recovered and arrested 4
	KotChutta, DG Khan.	Culprits while selling new QJJ. With coordination of AM
	QJJ	Legal the legal team added further sections and sent to
		Jail after remand. Culprits disclosed source at
		GallaMandi Multan
18.	FIR No. 1701/17 (18-09-2017)	*Completed action plan to arrest the Culprit
	PS Factory Area Walton Road	
	Lahore	
	Barshasha	

Source: Qarshi Industries (pvt)

The mechanism of anti-counterfeiting across these cases has been discussed in the next section:

4.1 Highlights of Regulatory and Counterfeit Cases: Local perspective

While seeking the anti-counterfeiting strategies of Qarshi Industries (Pvt), it was found that following measures and actions are taken:

I. Regulatory Affairs

These affairs are of regular and recurring nature and the company tends to resolve the regularity of affairs with the following authorities periodically:

- Food Department
- EPA (Environmental Protection Agency), FIA (Federal Investigation Agency), Drug, Police, Government or semi Governments according to company requirements.

II. Counterfeit Matters: Anti-Measures

The most compelling products of company i.e., QJS, QJJ, Qarshi Barshasa are counterfeited by local manufacturers in remote areas. The counterfeit cases are resolved by the following mechanism:

- Complaints are received from the sales team regarding declining number of orders and certain customers about the fake products. Then, counterfeiting anti-measures are conducted by the company's internal legal team
- Complaints regarding their products are resolved first of all by imposing "compounding of
 offenses" from shopkeepers and briefing the consequences in terms of the strict action of
 Punjab food authority. Besides, shopkeepers and retailers are asked to have the record of

invoices, vehicle number of mobilers (who supply counterfeit goods to shopkeepers) for later reporting of counterfeiting actions.

- Multiple raids conducted with Senior Supervisor Legal and registering FIRs against manufacturers, traders and distributors is also one the most successful mechanism taken against offenders.
- Through informers, the legal team intends to reach the factory outlet involved in the production
 of fake products and got succeeded in recovering bulk machinery, huge fake cartons, and raw
 materials. Many premises thus got sealed on registered FIR and faced trial.

5. Discussion

The anti-counterfeiting approach is identified through a single in-depth case study for the counterfeit anti practices in one of largest natural products manufacturing company in Pakistan, called Qarshi Industries (Pvt.) Ltd. The company is one of leading manufacturer of healthy food products by blending Greek herbal preparations with the latest technology since seven decades. These products have become essential elements of households thus creating a fixed demand from the consumer side. Counterfeiters have also taken advantage of company reputation and have been indulged in the fake production of company's high-end products. In order to counter these actions, the company has taken both preventive and reactive measures since years of operations by employing a taskforce of sales and legal team.

Figure 1 provides a holistic approach taken by the sample case study towards counterfeiting antimeasures in providing general as well as the specific deterrence to counterfeit sellers and manufacturers. Preventive strategies are taken with the intention of curtailing potential counterfeiting through general deterrence, whereas, corrective strategies are undertaken by dealing with counterfeiters legally through specific deterrence. The ultimate objective of both strategies is to reach the factories producing counterfeit products of the company thus eradicating counterfeiting at the source. The anti-counterfeiting strategies opted by company intends to develop the monitoring and traceability capabilities of the company for future surveillance of counterfeiting actions.

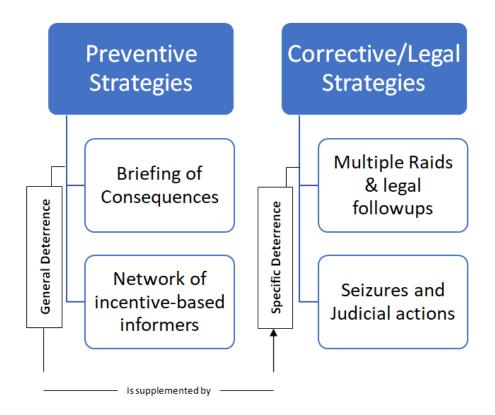


Figure 1 Anti-counterfeiting strategies

5.1 Preventive Anti-Counterfeiting Strategies: General Deterrence

In order to spread general deterrence in the markets and trade associations, the legal team tends to brief the presidents of trade associations about the consequences of fake and pirated trade undertaken in their markets. Besides, shopkeepers who have been involved in selling counterfeit products are provided compounding of their offense by waiving them from punitive measures. Shopkeepers are asked to inform company of any future counterfeit action. Moreover, the culprits who have been released are motivated to inform the company about counterfeit sellers and manufacturers against monetary consideration. This monetary incentive provides them enough inspiration to act as whistleblower for counterfeiting action in their locality and helps the company to counter the offense before the pirated products got the entry in consumer markets.

5.2 Corrective Anti-counterfeiting Strategies: Specific Deterrence

With the start of summer season, imitators move to remote areas because they have a threat in big cities like Lahore, Karachi, Faisalabad, etc. company's booking officers come to know about counterfeit when they visit the outlets and have lesser number of bookings for their products. Besides the declining sale intimated by sales team also poses alert for possible counterfeiting.

Further, complaints of customers are used to inform the company about piracy and food fraud. In order to deal with these complaints, corrective steps are taken. Punitive legal actions are undertaken for the

infringement of copyright trademark under the legal framework of Pakistan Penal Code. Besides in order to take anti-counterfeiting measures, multiple raids are conducted to reach the source fake manufacturer and follow-ups are taken with police and the special court to deter the culprit from future misconduct in this regard. Besides, judicial actions and cracking down on fake factories, wasting the fake production of their products help achieve successful anti-counterfeiting strategies.

However, as highlighted by the interviewee, there has been ineffectiveness prevailed in the judicial framework against counterfeiting offense in Pakistan which mitigates the apprehension among offenders. These misappropriations are comprised of arrests of counterfeit sellers and manufacturers who got bale from MPAs and strong political references. Besides, the culture of nepotism, bribery and less severe punishments also tend to impede the deterrence generated through these strategies. These loose ends needed to be tightened up by governmental authorities to strengthen the counterfeiting antimeasures opted by companies. Due to the ineffectiveness of country's legal system, preventive measures are supplemented by corrective measures too. So, in light of aforementioned limitations, there has to be a greater focus on corrective and legal actions as compared to preventive measures against counterfeit actions.

Keeping in view the local environment of low and middle-income economies, perpetrators are known to exist who benefit from their illicit trade (Halabi, 2015). Current study poses managerial implications for brands owners and right holders in these economies in protecting their brand image from unauthorized dealers and fake manufacturing. The strategies undertaken behind successful raids across eighteen cases from 2015 to 2017 would provide valuable insights for policymakers. Besides managers, government and regulatory authorities may also benefit from this study by tightening the loose ends in the system due to which counterfeiters take advantage and facilitating the companies in protecting their copyrights through providing severe punitive legal actions and ensuring the certainty and speed of punishment.

6. Conclusion

Manufacturing companies have been facing increased challenges in meeting the quality of their products, requirements of governmental regulatory authorities and combating the counterfeit actions against their copyrights in recent years. This paper presents workable strategies towards curbing the counterfeit actions. The proposed anti-counterfeit framework provides an effective and efficient approach in deterring the counterfeit actions. Our findings indicate that successful actions undertaken in eighteen cases revealed are characterized with a blend of both aggressive and preventive strategies in reaching the factory outlets and destroying the counterfeit products accompanied with a closure of the factory and remands of counterfeiters.

The strategies revealed in the present study thus provide a holistic approach towards tackling the counterfeiting by local manufacturers in remote areas. Although the methodology was valid and supported by the literature, the current study is not free from several limitations. Firstly, counterfeiting is a vast phenomenon and evolving further with the advent of social networking sites. The current study only targets anti-counterfeiting upon the imitation across physical channels, future studies may

incorporate virtual counterfeiting. Secondly, current study employs case study methodology by taking reference from a single company; future research may include a greater number of cases to get more insight into the subject. Finally, our findings are exploratory in nature and did not empirically test the research gap; future studies might entangle more rigorous approach toward achieving the purpose.

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