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# Timișoara Journal of Economics

Volume 1 Issue 4 | 2008

Ioan TALPOȘ,  
Vasile DOGARU

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# SOCIETY CHANGE OR ORGANISATIONAL EVOLUTION? GLOBAL OR LOCAL E-PHARMACIES?

Bruno SALGUES \*  
Kalyan BOLLAMPALLY \*\*

*Buying drugs through Internet is known as a Online pharmacy. People can buy various kinds of drugs like Prescription or Over The Counter (OTC). The Online pharmacies generally lure the customers by offering them discount prices. It is not simply selling the drugs through Internet. There are Pharmacists who will be working for the Online pharmacies providing the valuable services to their customers and checking the prescription letters thoroughly before selling the drugs to the customers. Apart from selling drugs to the customers, the online pharmacies can also provide health care information to the customers according to the HON Code (Health On Net) ethics.*

*As the generic drug sector in the Pharmaceutical industry is going to be a boom in the European Union and so the online pharmacies are going to pick up. By 2006, 75% of the 'Innovative' drugs are going to lose their patents, this is the reason why generic drugs are going to kick very soon in the market and so the online pharmacies are going to flood.*

*Buying drugs through Internet is a serious issue because it is related to one's health and hence, there are so many issues related to the Internet drugs in this document in order to go for the safe medicines over the Internet.*

## Key words:

online pharmacy,  
generic drugs,  
fake drugs.

JEL classification: I11, L81, I19, K42, L86

## METHODOLOGY

The introduction of E-pharmacy is a new kind of distribution channel, which, the customers can avail with ease. There won't be any disturbance in the existing drug supply chain and so there is no fear of job loss.

In Theory, it's like turning the traditional 'Brick & Mortar' pharmacy into 'Click & Mortar' which, means the customers can buy the drugs from the 'Brick & Mortar' pharmacy with the help

of the internet. The customer can avail the opportunity of proper online consultation with the online pharmacist.

In fact, the online pharmacies provide competitive advantage to the customer because, the customer can compare prices of drugs in several online pharmacies and then, source the drug in any online pharmacy of his choice. With the use of electronic prescription coming with DMP (Dossier Medical Partagé or Shared Health Records), more changes are coming.

\* professor, Groupe des Ecoles des Télécommunications, INT, MMS Département, CRITIC Laboratoires, France

\*\*researcher, Groupe des Ecoles des Télécommunications, INT, MMS Département, CRITIC Laboratoires, France

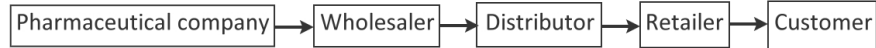


Figure 1

In some month, we can find some online pharmacies in France. The objective of this document is to analyse this changing situation.

To analyse this, the first stage is this qualitative study. We have analysed more of 200 online pharmacies in many countries (USA, Europe, Canada, India, China, ...). We have also observed the legislative and economic environments regarding to local situation. We have determined the important keys of success.

### Solutions for the Above Problems

Till now there are no reports about that the internet pharmacies caused problems to the traditional supply chain of drugs nor the pharmacists complaining about losing jobs because of the online drug sales.

#### Concerns & Solutions :

#### Hypothesis 1 :

*The Supply chain of drugs will get disturbed because of the introduction of this new distribution system into the market.*

**Solution:** It is absolutely no.

The *Figure 1* is an example of a Traditional distribution system of drugs to the customer.

The intermediates (wholesalers, distributors, retailers/pharmacists) feel that the introduction of online pharma-

cies will break the traditional distribution channel.

The pharmacists feel something may happen like this below diagram (*Figure 2*), if the internet pharmacies are introduced in France.

But, it's not really true. With the introduction of the Internet pharmacies the traditional distribution system will become still strong like this. We can find this situation in Germany.

From *Figure 3* we can conclude that there is no fear of break in the traditional distribution system with the introduction of Internet pharmacy in France. The Retailers themselves can distribute the drugs over the Internet to the customers.

#### Hypothesis 2:

*We have strong competition from overseas Internet pharmacies.*

#### Solution:

Even though now it's not legal to buy drugs from online pharmacies in France there are so many people who still buy drugs from the internet from the overseas pharmacies because, there are few embarrassment causing drugs like Cancer, HIV, Potency related and so the customer do not prefer them to buy them from the 'brick & mortar' pharmacies and so the Internet pharmacy will be much helpful and convenient for them.



Figure 2

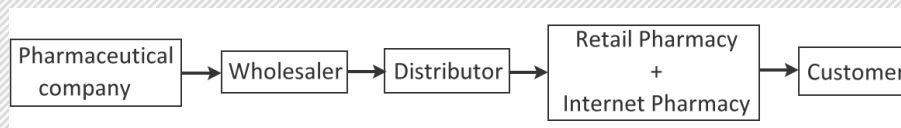


Figure 3

Although, it is legal in foreign (for example UK) to sell drugs to the overseas customers, it is difficult for the overseas customers to buy drugs from the foreign pharmacies because of the following reasons like:

- The overseas customers need to pay the VAT of 17% for the drugs if they buy from the overseas online pharmacies.
- Only the local GPs prescription is valid in order to buy from the local online pharmacies. We had the cost of new prescription making.

## 1. GLOBAL CONSUMER BEHAVIOUR

Companies need to rethink, reorganise and reinvent their marketing strategies in order to compete in a changing world market place. In the troubled markets that are affected by increased political and economic unrest in the global market place, continuing to follow the same paths for marketing and business strategy is extremely risky. So, both the speed of change and the level of complexity call for a new marketing paradigm, one that may well require companies to scrap their current models and methods and build a new approach to marketing.

### 1.1. Product, Services and Market

Increasingly, the unique product or service a company develops and puts into the market place is competitive for a shorter time period. The challenge that firms face is how to differentiate products in the market place when virtually every manufactured good quickly

becomes a commodity. Product differentiation is difficult to observe on drug.

Before proceeding further, I would like to discuss few things about the basic terminology, which is normally used in the Pharmaceutical industry. We can define only three type of drugs.

#### 1.1.1. Typology of Drugs

##### *Branded drugs.*

The newly invented drugs which are introduced into the market are known as Branded drugs. These drugs are expensive because there is so much investment in the R & D they have a patent from.

##### *Generic drugs.*

Generic drugs are nothing but, the exact copy of the branded drugs. These drugs are said to be cheaper than the branded drugs, sometimes these drugs costs fraction of the branded drugs. These drugs are less expensive because there is not so much investment in the R&D.

##### *OTC Drugs (Over the Counter drugs).*

OTC drugs which do not require any prescription.

##### **Examples:**

*Lipitor (cholesterol drug) manufactured by Pfizer etc. Metronidazole is an ingredient manufactured by Hawgreen Company and it sells this ingredient in the market under its brand name "Flagyl". Millizole is the generic name of Flagyl and a Mexican company manufactures it. Ibrufin are one OTC Drugs.*

#### 1.1.2. Market Strength and Evolution

Most companies tend to underestimate the market strength of their competitors and especially of new competi-

tors from outside the traditional boundaries of the industry.

In addition, many companies do a poor job developing a strong understanding of the unique cultures that exist within each country within which they do business. Many companies tend to stampede into new cultures without taking the time to learn about those cultures, the differences and similarities between the new markets and countries and the company's home country and other countries in which it operates. The more a company truly understands the unique needs and desires of the new market, the more responsive it will be able to be to that market.

Far too many companies develop products or services for a general or average global market, few others develop products for specific, unique domestic market segments as part of an umbrella global concept. And, only a handful of companies have effective process for knowledge transfer across the world. It is the case of drugs firms like Aventis, Pfizer ... This firms have many implemented on the world.

Hence, the new business model will no longer be based on transaction; it will be based on relationships. Customer and supplier will work co-operatively together. A company will not sell products or services; rather, it will provide solutions to customers needs. Competitive advantage will not lie in just a company's marketing power as much as it will in the quality, finesse and timing of its marketing efforts.

## 1.2. Internet Strategy on Pharmacy

The Internet has become one of the important tool in companies of all sizes, in countries all over the world. The company should need to move to the net in order to not to lag behind. The Internet is a network of networks. It is a linking of millions of computers, around the world, into one vast collection of information. In the beginning the internet was used by the U.S federal government but, now it has become more of a busi-

ness tool from the last few years with the development of the "World Wide Web".

### 1.2.1. The Web and the Pharmacy

The "World Wide Web" is a part of the Internet. It is not the same thing as the internet. The web is the collection of computers that are set up to exchange text, graphics and sound files in a particular style which will be easier for most of the people to deal with.

Implementing the Internet in the business is like equipping the employees of the company to utilise the Internet's capability as data storage and as a communications medium. By using these capabilities, the people will become more efficient and more productive and the company becomes more profitable.

If properly applied as a business tool, the internet has the capability to make the employees more productive, effective, reduce the cost of doing business, increases the competitive advantage, improves communications between the company and its suppliers and also improves the communications between the company and its customers.

The Internet strategies are a kind of logic to develop because the Web has become an important piece in so many areas across a company's operations like marketing, sales, human resources, finance etc. As a result, crafting an online business plan requires a unique approach and input from an unusually large group of contributors from all over the company.

Most of the companies either small or medium, conduct formal business planning at least once a year, often times in the form of an offsite meeting with key executives in attendance. These meetings provide the platform for the creation of a variety of business plans like corporate strategy, budgetary, marketing, sales, human resources, IT etc. These types of plans are common documents that most businesspeople readily understand. Internet planning, while a relatively new activ-



ity, is something we are seeing more and more of at small and medium businesses.

Planning internet serve the same purpose and take the same form and structure as any other planning document. The intent is to map out how the organisation will be applying the Internet to improve the business operations and stay competitive. The plan sets companywide expectations, establishes budgeting needs, and provides a benchmark for measuring success or failure over a specified period of time.

There are, however, unique elements to Internet planning that require special attention and techniques like meeting with the key stakeholders inside the organisation, every functional executive and their important direct reports in order to determine their needs and the Internet related projects that are underway within their areas. Considering to use a standardised survey to facilitate information gathering and generate quality data for consistent reporting.

### 1.2.2. Brick & Mortar Vs Dot-Com

Previously, the dotcom retailers were flooding the internet with several attractive schemes like cheap prices and perks such as free shipping in order to attract the customers and not only that the dotcoms have completely dominated the traditional brick & mortar companies. But, the dotcoms domination over the brick & mortar was not so long, slowly, the domination has declined and the online brick & mortar companies have fought back with highly successful click & mortar strategies.

#### **Example of dotcom pharmacy**

The [www.pharmacy2u.co.uk](http://www.pharmacy2u.co.uk) is the largest mail order and online pharmacy in the UK. It was established in the year 2001 in the UK. This UK based website sells health related products like Cosmetics, OTCs, Vitamins, Condoms, Hair Care, Dermatological products etc. It was established in the UK with the consent of the RPSGB (Royal Pharmaceutical Society of Great Britain) and it works in association with the NHS (National Health Ser-

vice). It attracts visitors of about 35,500 per month. 95% its customers are UK based.

Some of the reasons why dotcoms have failed is because of poor business plan, a lot of investment capital was spent on poorly planned dotcoms that clearly couldn't reach profitability, poor promotions & sometimes hundreds of errors could be found in one web page. The dotcom frenzy was fuelled by dreams of extreme wealth for executives, employees and investors, without adequate emphasis on a viable business plan, solid mission and inspiring vision.

Lacking, sound business plans and virtually ignoring even basic human resources and customer service requirements, most dotcom leaders focused on expensive, splashy websites. Urgency and speed is a competitive advantage were common business mantras of the dotcom and high tech world. The more faster these organisations moved, the more they ignored signs of severe employee burnout, pending droughts of funding, poor customer service, unfocused leadership and diversions from the original vision and mission.

### 1.2.3. Click & Mortars

Click-and-mortar describes a store that exists online and in the physical world. Multichannel offers increased sales but, the challenge will be to improve the total customer experience across all channels. But, even as the dotcoms fail and click-and-mortar companies re-evaluating their online business plans, the Internet consumer is alive and well. More people are spending more money online than ever before. Many of the retailers have done their own internal studies, which show that their multichannel customers make more money and spend more money than their customers who shop just a single channel. But, there are few challenges for Click & Mortars as well like they need to provide a consistent brand and merchandising experience to the customer, regardless of which channel that consumer happens to be shopping

at that particular moment in time, the click-and-mortars must integrate their online CRM information with the CRM information from their traditional channels and finally, the retailers have to integrate their inventory systems to that customers can see what is available. The inventory information should be consistently updated.

In some countries, it is possible to have only e-pharmacy based on brick and mortar firm. For example, it is the case of Denmark and Germany.

#### **Explosion of click and mortar pharmacy in Germany**

Till 2002 there was a ban on Internet pharmacies in Germany but, now there are lots of internet pharmacies. Now, In Germany, only the Brick & Mortar, which have physical existence, pharmacies can sell drugs through Internet. Within 12 months the Internet pharmacies in Germany rose from 0 to 800. The German online pharmacies can also accept the customers from other EU member countries. This grows is increasing.

## **2. ONLINE PHARMACIES, AN ANALYSIS**

### **2.1. Characteristics of Online Pharmacies**

#### **2.1.1. Benefit of Online Pharmacies**

The benefits which online pharmacies provide are Access to drugs for the disabled, the convenience of shopping 24 hours a day, Privacy, Lower Prices & Overcoming the supply shortage problem to some extent.

##### **Access to drugs for the disabled :**

The online pharmacy is one of the most convenient way of shopping for the disabled people because, it makes them self-dependant.

##### **Convenient shopping :**

It is one of the convenient ways of shopping for people who stay very far from the pharmacy.

##### **Privacy :**

The online pharmacy provides privacy for the people who do not want to disclose their health information to the nearby home pharmacies. Few people are shy to buy 'Viagra' (an erectile disfunction drug) from the nearby home pharmacy and so now 'Viagra' is the top selling online drug today.

##### **Lower Prices :**

In order to attract the customers, most of the online pharmacies sell drugs at lower prices or sell the 'Imitation' (generic drugs or near to generic drugs with some modification in the API) drugs. Sometimes, poverty drives poor people to buy cheaper drugs online. Many of the online pharmacies sell 'generic' or 'Mee too' drugs which are said to be cheaper when compared to the 'Innovative' drugs.

##### **Overcoming the Supply Shortage Problem :**

It is response at the non-availability of drugs in the nearby pharmacies because of supply shortage lures people towards the online pharmacies.

#### **2.1.2. Concerns about Online Pharmacies**

Buying drugs from unauthorised or illegitimate websites, which means risking one's health. Many of the unauthorised online pharmacies sell counterfeit drugs with huge price discounts. Patients taking medications do not respond and the doctors don't know why and sometimes the patients die.

But there are few major concerns about online pharmacies like:

- The unauthorised online pharmacies sell counterfeit drugs
- The online drugs are not registered by the US-FDA/TGA-Australia/UK-MHRA etc.
- The online pharmacies provide huge price discounts in order to lure the customers,
- The customers may never receive the mail order,

- The customers may become the victims of credit card fraud and these websites do not ask for any valid prescription.

The online pharmacies provide huge benefits to the customers but at the same time there are thousands of unauthorised online pharmacies, which are luring the customers. Hence, it is very important for the customer to know which is authorised/legitimate website and which is unauthorised/illegitimate website.

## 2.2. Authorised or not?

### 2.2.1. Differentiating Authorised & Unauthorised Online Pharmacies

Here, below I am going to differentiate the features between Authorised & Unauthorised Online Pharmacies :

#### Authorised Online Pharmacy

The authorised online pharmacy is registered under the VIPPS (Verified Internet Pharmaceutical Practice Sites) in the US and CIPA (Canada Internet Pharmaceutical Association) in Canada. It sells the drugs which are approved by the US-FDA etc. It only sells the drugs which are manufactured under the WHO-GMP guidelines. It is very important for the customer to submit his doctor's prescription before buying the medicines online. The authorised online pharmacies disclose their phone number and office address.

Some of these authorised online pharmacies have a limited choice of product. It is decided with the authorization process.

#### **KwikMed.com**

*The KwikMed.com is the highest rated online pharmacy in the U.S. It is a U.S based online pharmacy. It is a very unique pharmacy because, there is no need for the patient to submit the original prescription. It is an independent business and it does not work under any association such as VIPPS or CIPA etc. The KwikMed is the only Internet pharmacy in the U.S to get the regulatory approval to prescribe FDA approved and do-*

*mestically manufactured medications online. Currently, the KwikMed.com is authorised from Utah Stat to sell only 4 kinds of drugs through online such as: Viagra, Cialis, Levitra and Propecia. Customer just needs to fill the online questionnaire, which takes about 20 minutes to fill in order to buy the drugs.*

#### Unauthorised Online Pharmacy

The unauthorised online pharmacy is not registered under any society, It sells the drugs which are not approved by the US-FDA, It does not ask for any valid prescription from the customer before selling the drugs, The unauthorised online pharmacies do not disclose their phone number and office address.

#### Information about authorised and unauthorised pharmacy

By browsing the websites like [www.walgreens.com](http://www.walgreens.com), [www.drugstore.com](http://www.drugstore.com), [www.pharmacinet.com](http://www.pharmacinet.com), [www.europeanmed.com](http://www.europeanmed.com) one can decide which are authorised and unauthorised websites.

### 2.2.2. HON Code for Authorized Pharmacy

The HON Code is nothing but, Health On Net Code and Conduct. The Health On Net Foundation was established in 8th September 1995 in Geneva, Switzerland. As the Health On Net conference concluded, the committee members decided to create a body, which promotes the effective and reliable use of the new technologies for telemedicine in healthcare around the world. Now, HON Code is the most respected & well-reputed logo as the HON Code logo is used by more than 100,000 health related web sites around the world.

It is possible to find information at this address : <http://www.hon.ch/>

### 2.2.3. Online Pharmacy on Europe

Even though it is not legal to buy online drugs in the European Union, so many people browse various websites to buy online drugs. Unfortunately,

there is no well-established society like VIPPS or CIPA in the EU as were in North America. Hence, it is the high time for the EU to create a well-established online pharmacy before anybody becomes a victim of an authorised online pharmacy.

### **3. DRUGS/HEALTH CARE PRODUCTS & E-PHARMACY**

If we speak about the drugs, there are plenty of variety of drugs sold in the market like Prescription, OTCs, Beauty products such as Cosmetics/ Dermatological related products and Health care products such as Diagnostics kits etc.

#### **3.1. Relation Between Prescription and Online Pharmacy**

##### **3.1.1. Prescription drugs & E-Pharmacy**

The Prescription drugs are sold in the pharmacies, only when the customer shows his prescription letter prescribed by the doctor to the pharmacist. It is illegal in the majority of countries to sell the prescription drugs without a valid prescription.

As the Prescription drugs are highly specialised drugs and they may react negatively on the patient, if he consumes them without his doctor's consent. There are various therapeutic segments of Prescription drugs like Anti-Biotics, Anti-Inflammation, Oncology, Chemotherapy, Immunology, Neurology, Cardio-vascular, Central Nervous system etc.

Hence, it is very important for the patient to know exact dosage form, dosage strength of the API (Active Pharmaceutical Ingredient) before he consumes them and so the doctor's consent is a must in this matter.

##### **3.1.2. Online Pharmacies & the Prescription drugs**

The authorised online pharmacies they generally sell the drugs to the patients only after receiving the original prescription not from the customer but, from the doctor. The online pharmacies generally accept the prescriptions sent to them directly by the doctor either by fax or scan.

In the US generally the doctors will send the original prescription to the online pharmacies, if the patient prefers. Sometimes, the patients prefer online pharmacies because; of the availability of the generics that means less expensive drugs.

This solution is available for cross border e-commerce.

##### **3.1.3. Case of Cross Border Selling of Drugs: Canada and USA**

The cross-border trade of prescription drugs is growing in between Canada and the U.S, the Canadian pharmacies are profiting a lot from its U.S customers. For the U.S customers, the drugs in the Canadian pharmacies are less expensive. The cross border trade of prescription drugs is estimated to be more than \$1bn annually. According to the U.S FDA, every year the U.S customers of the Canadian pharmacies receive more than two million packages of prescription drugs.

There are three main ways of access to the Canadian pharmacies for the U.S customers like.

##### **Store-front businesses in the U.S**

A U.S customer brings his prescription to a store-front processing centre in the U.S. The prescription is then sent along to a Canadian pharmacy then, the Canadian physician re-writes the prescription (in order to make in valid in

Canada) and then the prescription is filled and shipped to the U.S customer.

#### **Full organised Internet**

A U.S customer accesses a Canadian online pharmacy web site and checks the prices and then he downloads order and information forms. The U.S customer then faces a copy of his prescription (as electronic orders are not valid) along with his doctor's information, personal information and payment to a Canada based online pharmacy.

#### **Direct Personal shopping**

Many U.S customers, particularly residing in the border states of Canada, simply drive their car and cross the border to get their medicines at cheaper prices.

### **3.2. Online Pharmacies&the OTCs**

#### **Definition of OTC**

The term OTC is nothing but, Over The Counter. There is no doctor's consent is required in order to buy the OTCs from the pharmacy. But, it's the pharmacist's duty to educate the customer before selling the OTC because, a chemical substance is present in the OTC which may be of adverse effect on the patient, if he takes the wrong dosage form of the OTC.

Some of the examples of the OTCs are as follows Ibuprofen, Aspirin, Vitamin supplements etc.

It's a bit complicated issue i.e., selling the OTCs over the Internet because, there is no doctor's prescription is required in order to buy the OTCs but, it's the E-Pharmacist's duty to educate the customer before selling him the OTCs.

The other complications of selling OTCs by internet are that few drugs like Anti-cholesterols are now under OTC in the UK but, in France it is still under the Prescription drug list. Hence, it is illegal to sell the Anti-cholesterols to France without considering the doctor's prescription.

### **3.3. Online Pharmacies & Cosmetics/Dermatological/ Beauty Related Products**

It is the responsibility of the E-Pharmacist to educate the customer before selling him the beauty related products because; these products contain chemical substances and may prove lethal in some cases. Hence, the details of such products should be mentioned according to the HON code of ethics.

### **3.4. Online Pharmacies & Other Health Care Related Products such as Diagnostic Kits**

The rapid diagnostic kits are widely distributed to the customers over the internet by various companies. Today, various diagnostic kits are available over the Internet such as Rapid HIV detection kits, Rapid Malaria detection kits, PSAs (Prostate Specific Antigens), FOBT (Faecal Occult Blood Tests), CEAs (Carcinoma Embryonic Antigens), Brain S-100, Rapid Narcotic Detection kits etc.

#### **Factors to be respected**

These, Rapid detection kits perform very well with an accuracy rate of 99.99% but, its performance depends upon the environment behind & beyond of it such as packaging, shipment, storage conditions, temperature and many other factors. Usually the storage conditions of the diagnostic kits is between 4°C to 28°C and they should be transported in a cold shipment. Hence, the customer should consider all the above factors before buying them through Online.

#### **Diagnostic Kits and Psychological impact**

The diagnostic kits will create a Psychological impact on the customers and it's very difficult for the patient to recover from the trauma suppose if the kit shows positive for the disease.

As the diagnostic kits are not 100% accurate and so there are chances of

“False Positives”. As the customer know that he is positive towards the disease then, he will undergo Psychological trauma and it will be very difficult for him to recover from that trauma.

Hence, the Online pharmacies should give good information to the customers before selling such kind of kits to them.

#### 4. QUALITY OF DRUGS AND HEALTH PROBLEMS

##### 4.1. Fake Drugs & the Internet

Patients taking medications do not respond and the doctors don't know why and sometimes the patients die.

###### 4.1.1. Fake Drugs, a Definition

From the fake drug to the counterfeit drug.

###### Fake drug

“The Fake drugs are nothing but the fake drugs”. The Fake drugs are the drugs which are not fit enough to enter in the market because, they do not contain the same active ingredient as the real drug contains. The counterfeit drugs are the faulty drugs like they do not contain enough active ingredient or contain too much of the active ingredient or no active ingredient at all. The Counterfeit drugs are falsely sold in the market under brand names. Its difficult to differentiate which is the real brand drug and which is Counterfeit drug because, of the same package.

###### Counterfeit Drug

The Counterfeit drugs produce dangerous side effects to the patient's health. The health of the patient will become worse if the drug taken is ineffective. In 2003, Pfizer has recalled its 200,000 tablets of the cholesterol-reducing drug 'Lipitor' because of the Counterfeit drug problem. Counterfeiters are becoming more sophisticated in their

technologies and methods of introducing counterfeit drugs into the US system.

##### 4.1.2. Impact of the Generic Market

Today, there are several cases of Counterfeit drugs and the counterfeit drug cases are increasing every year and it is because, there is a higher demand for prescription drugs, as more drugs are being invented to treat different kind of diseases. Newly invented drugs are very expensive and so consumers are willing to turn to a new kind of distribution system i.e., “Internet Pharmacy”. Because of the new technologies, the criminals are able to manufacture the counterfeit drugs very easily and then they sell those drugs through internet. It is difficult for the consumer to judge whether the seller is authorised or unauthorised.

Today, because of the emerging generic drug market, the consumers have so much choice for buying prescription drugs. But, when they look for the best price or most convenience, they need to be careful about the source of their medications because, Counterfeit drugs are on the rise. The Counterfeit drug cases are increasing in the U.S even though the drug supplies are considered to be safe. There are several reasons for the increase of the Counterfeit drugs like higher demand for prescription drugs, as more drugs are invented to treat the disease. Some drugs are getting more expensive, so consumers are willing to turn to non-traditional sources. New technologies are making it easier for criminals to make counterfeit drugs and now that drugs are being sold over the Internet, without fact-to-face contact between buyer and seller, it's harder for consumers to know whether, the seller with whom they are dealing with is authorised or not.

#### Some private or intimacy used drug

Currently, there are hundreds of fake web sites selling prescription drugs especially in the therapeutic segment of ED (erectile dysfunction), Beauty related products, Immuno-suppressants. The fake web sites know that there is so much market potential in these therapeutic segments and that's the reason that they are booming every day.

In the category of ED, the fake web sites mostly sell the drugs such as Viagra and Cialis and today these drugs are top selling online drugs in the market. Whereas, hair loss and obesity related products are the top selling beauty related products. The Immuno-Suppressants like oncological drugs and other chemotherapy drugs are also on the rise in online pharmacy in Europe.

#### Price effect

Today, most of the people buy these kind of drugs from online pharmacies because its less expensive to buy from them. But, meanwhile the customers risk themselves by buying the drugs from unknown online pharmacies. Most of the customers while buying drugs from the unknown online pharmacies might have never heard about the counterfeit drugs or they may just ignore the risks involved in buying them. Today, the Internet is the uncontrolled route of distribution and the governments of all the countries should accept this fact and take appropriate steps in order to save the people from the clutches of the evil distributors.

According to September 2004 statistics, approximately one-third of American consumers had bought prescription medicines online or had planned to use the Internet to buy prescription drugs. The reason for the growing popularity of the online drugs is that the drug prices are generally much lower.

#### Top 5 online counterfeit drugs in the U.S

1. *Lipitor (Cholesterol reducing medication)*
2. *Viagra (for ED)*
3. *Reductil (for obesity)*
4. *Procrit&Epogen (for Anti-anemia & fatigue)*
5. *Globulin (Gamimune, Gammagrad)*

#### 4.2. The entry of Fake Drugs Into the Market

The Prescription drugs often follow a long path, through wholesalers and re-packagers, before reaching the pharmacy. There are some criminal wholesalers who sneak fake drugs into the system. When wholesalers or re-packagers get their drug products from sources other than original manufacturers, this creates the greatest opportunity for counterfeiting. For example, when low-priced drugs that are supposed to only be used by health clinics or medical aid programs end up being taken from those places and sold again for a higher price. Once outside the regular distribution system, the safeguards for re-packaging, content and storage no longer protect the drugs.

In U.S.A, the FDA is currently working with companies that make and sell drugs to identify and prevent counterfeit drugs. In February 2004, the FDA has issued a report, which describes the steps that can be taken to secure the U.S drug distribution system.

Authorised drugs are sold in many ways, including the Internet, and so are the Fake drugs. While purchasing drugs from online sellers can be convenient and economical, there are illegal web sites that may sell customers contaminated or counterfeit product or a product that has not been approved by the FDA, sometimes they deliver the wrong product or they may take customers money and never deliver anything in return. The customer can reduce the likelihood of trouble by dealing with legitimate, licensed online pharmacies.

Even if some online pharmacies sell the authorised prescription drugs to the consumers, they don't ask for any valid prescription from the customer.

#### 4.3. The Sources of Fake Drugs:

Fake drugs currently are most likely to be introduced as part of a drug distribution process involving multiple wholesalers. However, it is important to recognise that criminal activity to introduce counterfeit drugs can occur at any stage in the drug distribution system, so that safeguards are needed in all of the transaction processes.

Many drugs in the distribution system are also "repackaged". In the U.S., wholesale drugs in bulk containers are often repackaged into smaller containers prior to sale to an end user. Repackaging operations are performed by independent entities, wholesale distributors or by distribution centres owned by large pharmacies. In the current distribution system products are repackaged for several legitimate reasons, such as to improve efficiencies for automated systems. In Europe, products are packaged in quantities that relate to a course of treatment in general, obviating the need for repackaging.

The Task Force heard from law enforcement personnel that when counterfeit drugs are identified, they are often associated with diversion of the drugs that they purport to be. Diversion is the sale of drugs outside of the distribution channels for which they were originally intended. Diverted drugs can originate domestically, when there is illegal redirection of prescription drugs from other authorised sources, such as free samples supplied to health care

providers or lower-priced product intended for use in one country is diverted to another country where the market price is higher. Counterfeit drugs generally are associated with the practice of diversion.

In the U.S as well there are no any legitimate, regulated channels for such diverted drugs to re-enter the drug distribution system. Consequently, there is no reliable mechanism in place to distinguish effective authentic lower-cost drugs from drugs that simply appear to be so, but are not legitimate and may be harmful.

Diversion facilitates the entry of counterfeit drugs into the U.S distribution system because those individuals or entities that sell or purchase diverted drugs are less able to verify the integrity of these drugs, because they are purchased outside the normal distribution chain and without the usual regulatory safeguards. As a result, counterfeit, substandard or otherwise adulterated or misbranded products may become commingled with authentic drugs in the U.S distribution system. Because counterfeiting is often associated with drug diversion, steps to secure the drug supply against counterfeits may also make criminal drug diversion more difficult.

#### CONCLUSION

It is not difficult to make some prospective. The on line pharmacies are coming around the world.

Introducing overseas competition is not the real expectation. It is the same for the change of distribution channel.

But, the most important point is the modification of quality on product, and fakes or counterfeits drugs arrival.



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