Volume 2, Issue4,October- 2011
Available Online at www.ijppronline.com
International Journal Of Pharma Professional's Research
Review Article

ISSN NO:0976-6723

EMERGING TRENDS IN WORLD PHARMACEUTICAL MARKET – A REVIEW

Syed azeem haider*,Syed aliul hasan,Shaweta sharma,Achhrish goel,
1. Teerthankar Mahaveer College Of Pharmacy,Teerthanker Mahaveer university,moradabad

Abstract
As business becomes more and more competitive success depends on how well and how fast one is informed. This article is therefore an effort to find some clues about the current trends are in the world pharmaceutical markets that should be entered in the future. The use of the Internet as a source of health information and connectivity between providers and payers in the US has increased interest in e-health as a channel for the marketing of health-related products and services. In the US, pharmaceutical companies are increasingly exploring on-line direct-to-consumer advertising of prescription drugs, although the return on such marketing investments remains unclear. Our current model of the interaction between the pharmaceutical industry and the providers of e-health solutions (health portals, connectivity and technology providers) is largely influenced by the US experience. A superficial analysis would lead us to believe that restrictions on direct-to-consumer advertising of prescription drugs and the limited opportunities for private sector connectivity solutions limit the opportunities for the successful application of e-health as a pharmaceutical marketing tool in Europe. A critical review of evolution of e-health in Europe, focusing on the strategic implications of the differences (and similarities) between the European and US e-health environments can assist us in better discerning emerging trends and distinct commercial opportunities at the interface between the pharmaceutical industry and e-health. The foundation of sustainable success in the application of e-health for pharmaceutical marketing lies in the combination of strategic alliances and technological innovation with an understanding of the context of the European market for health products and services.

Keywords: - pharmaceutical market,emerging trends

Introduction
Pharmaceutical marketing, sometimes called medico-marketing, is the business of advertising or otherwise promoting the sale of pharmaceuticals or drugs. There is some evidence that marketing practices can negatively affect both patients and the health care profession. Many countries have measures in place to limit advertising by pharmaceutical companies.

Pharmaceutical company spending on marketing far exceeds that spent on research.In Canada, $1.7 billion was spent in 2004 to market drugs to physicians; in the United States, $21 billion was spent in 2002.In 2005 money spent on pharmaceutical marketing in the US was estimated at $29.9 billion with one estimate as high as $57 billion. When the US numbers are broken down 56% was free samples, 25% was detailing of physicians, 12.5% was direct to user advertising, 4% on hospital detailing, and 2% on journal ads. The marketing of medication has a long history. The sale of miracle cures, many with little real potency, has always been common. Marketing of legitimate non-prescription medications, such as pain relievers or allergy medicine, has also long been practiced, although, until recently, mass marketing of prescription medications has been rare. It was long believed that since doctors made the selection of drugs, mass marketing was a waste of resources; specific ads targeting the medical profession were thought to be cheaper and just as effective. This would involve ads in

Correspondence Address:
Syed azeem haider
M.pharm
Teerthankar Mahaveer College Of Pharmacy
Teerthanker Mahaveer university,moradabad
uttar pradesh, INDIA
Phone no: +91-9410071345
E-mail- abidi757@yahoo.com

professional journals and visits by sales staff to doctor's offices and hospitals. An important part of these efforts was marketing to medical students. (1)

Therapeutic Area wise Total Pharma Market

Category	Value Market Share%
Anti-Infective	16.4
Gastrointestinal	10.9
Cardiac	10.3
Respiratory	10.2
Vit./Minerals/Nutrient	9.6
Pain/Analgesics	9.5
Dermatologics	5.4
Gynecology	5.3
Neuro psychiatry	5.3
Antidiabetics	4.4
Opthologicals	1.7
Others	11.0
Total	100.00

Fig:- Chronic therapy area

Pharma Marketing Process and its Challenges (2)

While many pharmaceutical companies have successfully deployed a plethora of strategies to target the various customer types, recent business and customer trends are creating new challenges and opportunities for increasing profitability. In the pharmaceutical and healthcare industries, a complex web of decision-makers determines the nature of the transaction (prescription) for which direct customer (doctor) of pharma industry is responsible. Essentially, the end-user (patient) consumes a product and pays the cost.

From organizational perspective the most prominent performance related issues are enlisted below:

a) Increased competition and unethical practices adopted by some of the propaganda base companies.

b) Low level of customer knowledge (Doctors, Retailers, Wholesalers).

c) Poor customer (both external & internal) acquisition, development and retention strategies

d) Varying customer perception.

e)The number and the quality of medical representatives

d) Very high territory development costs.

f) High training and re-training costs of sales personnel.

g) Very high attrition rate of the sales personnel.

h) Busy doctors giving less time for sales calls.

i) Poor territory knowledge in terms of business value at medical representative level.

j) Unclear value of prescription from each doctor in the list of each sales person.

k) Unknown value of revenue from each retailer in the territory.

l) Absence of ideal mechanism of sales forecasting from field sales level, leadingto huge deviations.

m) Absence of analysis on the amount of time invested on profitable and not-so profitable customers and lack of time-share planning towards developing customer base for future and un-tapped markets.

How drugs are promoted (3)

The average cost to bring to market a so-called block-buster drug is currently estimated at $895 million (EFPIA, 2002). Obviously firms who spend that kind of money need to recoup their costs.

Furthermore industry analysts point out that Big Pharma under pressure. It needs to expand sales of blockbuster drugs since there are fewer drugs in pipeline. In order to sustain current levels of growth, firms would need to introduce one new product each year that would sell $4.9 million for each 1 to 1.5 per cent it has of the world pharmaceutical market. "A company the size of the newly merged Glaxo Wellcome/Smith KlineBeecham needs three to seven products each year, while one the size of Astra Zeneca needs two to four products each year. The problem is that research productivity is failing. None of the major companies is close to the target."

(Horrobin 2000) Depending on the category of drug the nature of the marketing mission is different. There are essentially two categories of drugs: self-medication or over the counter (OTC) drugs and prescription drugs sometimes referred to as ethical drugs (de Mortanges and Rietbrock 1997). OTC drugs are promoted directly to consumers as well as physicians and other healthcare professionals and range from analgesics such as paracetamol to anti-histamines. What is categorized as OTC varies from country to country and is dependent on the local legislative framework – usually a national medicines authority, so for example in the United States some antihistamines are prescription-only. Corstjens (1991) identifies four main buying parties for prescription drugs:

1. Prescriber – prescribing rights vary internationally and this category may include doctors, dentists, pharmacists, nurses and optometrists

2. Influencer – hospitals, nurses, professors, reimbursement agencies

3. Consumer – patient

4. Financier – partly patient, partly government or third

party (varies by country), managed health care organization (hospitals, Health Maintenance Organisations etc.)

The majority of Big Pharma's marketing budget is targeted at doctors and others with prescribing power, who are effectively the gatekeepers to drug sales. In 2002 the Canadian Medical Association Journal estimated some US$19 billion is spent by Big Pharma annually in promoting drugs to doctors in the United States alone. The methods used will be discussed later in this paper.

In the European Union only OTC drugs are promoted directly to consumers. Examples include analgesic preparations and some ailment-specific drugs such as the Schering Plough blockbuster Clarityn - a hayfever remedy. In 1998 Schering Plough spent $186 million promoting Clarityn, and as a result saw a half a billion dollar increase in sales year on year to achieve annual sales of $1.9 billion, (Maguire 1999).

In the United States all drugs may be promoted to consumers, but in practice direct to consumer advertising focuses on OTC and common-ailment targeted prescription drugs. There are other more limited application drugs for less common diseases that are only promoted to health care professionals, and hospital and organizational formulary committees (such as HMO formulary committees). The drug marketing process can be described by the model below, which shows the information flow from drug companies, both to consumers and doctors. It also shows the power that consumers, informed by DTCA and the Internet, have in "pulling" prescription drugs from doctors.

Creating the Pull – Directly and Indirectly: Historically promotion for prescription drugs occurred only from manufacturer to prescriber so that physicians and others with prescribing powers were the gatekeepers to eventual drug sales. The promotion strategies therefore were all essentially "push" focused. However the decision in 1997 by the US Food and Drugs Administration (FDA) to relax restrictions on broadcast DTCA of these drugs has resulted in increased "pull" from consumers. In both the United States and New Zealand DTCA of prescription drugs occurs with considerable effect, as will be discussed below. A further source of 'indirect' pull has been the impact of the Internet on pharmaceutical promotion, which will also be discussed below.

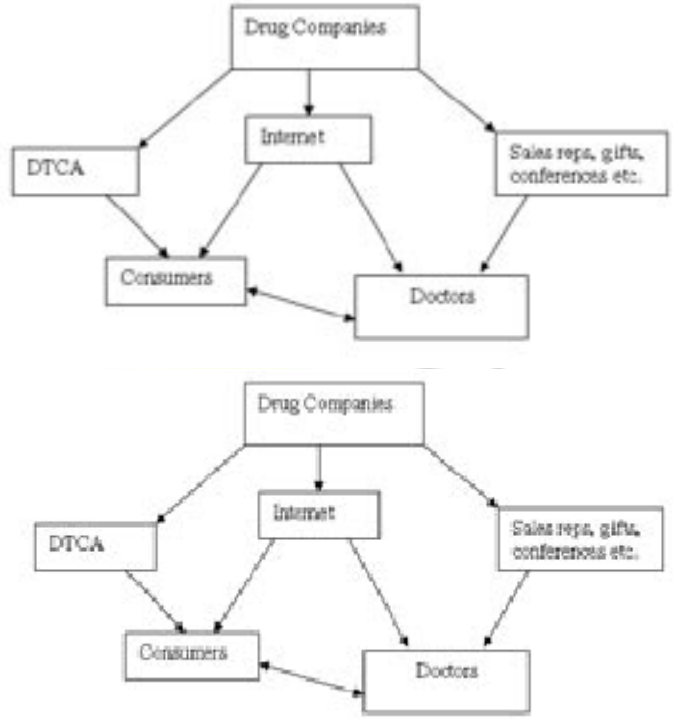


Fig no.2 : Pharmaceutical marketing process

Key Factors Pushing New Media to the Forefront of Pharmaceutical Marketing (4)

Evolving Consumer Media Mix

If one thing is clear in the ever-changing media landscape, it's that the consumer is in control. Emerging channels provide individuals with more options for obtaining news, entertainment and information, and traditional TV, print and radio sources no longer dominate the consumer media mix the way they did ten years ago. Less than half of U.S. adults reported watching all of their television programs live on their TV set, prompting companies to explore new strategies for reaching consumers amidst the growing popularity of DVR, online video, and mobile entertainment. The manner in which U.S. adults obtain health and pharmaceutical information also follows suit with overall trends – online health information seeking has more than doubled since 2002 and online pharmaceutical information seeking has more than tripled in the same time period – up to over 145 million and about 95 million users, respectively. And the online health resources consumers find are impacting the healthcare decisions they are making for themselves and their families.

Pharmaceutical marketers are catching on to the trends, but there's a long way to go before brand media closes the gap between where consumers are and where budgets are going – only a small fraction of overall pharmaceutical advertising spend is currently allocated to online campaigns. But as

we're seeing with our clients, consumer trends are prompting marketers to put more weight behind digital strategies.

Shifting Focus to Niche Therapies

As the pharmaceutical industry shifts its focus from blockbuster drugs to niche therapies, different marketing strategies come into play. While mass media campaigns were successful in raising awareness of conditions of interest to a broad base of individuals, promoting niche drugs requires precision targeting and fostering one-to-one relationships with patients. Traditional broadcast media doesn't necessarily fit in well with this approach, but strategies around social media, search marketing, behavioural targeted advertising, and the like can help marketers target better defined audiences and engage with them on a more personal level.

Increased Accountability for DTC Advertising

A recent Harvard Medical School study found that DTC advertising, primarily consisting of television, radio, and print promotion, may not be as effective as pharmaceutical marketers would like to think. In some cases, there was no correlation between DTCA campaigns and increased prescriptions. It's noted that many are questioning the study's methods, but the truth remains that the current economic climate and tightening budgets will hold marketers more accountable for measurement and ROI. Companies all across the board are struggling to make sense of online ROI, especially those in industries like pharma where the transaction takes place offline, but advancing analytics technology will provide marketers with a clearer link between digital strategies and sales in future years. Also, mergers in the online health space and increased online advertising capabilities overall should help marketers to more efficiently reach a critical mass of healthcare consumers or better target those within a specific condition group. As pharmaceutical companies become more comfortable with new media, they will be better able to leverage its power to enable cost-effective marketing strategies.

Emerging Trends in Consumer Use of New Media and Technology for Health

So if digital media is poised to increase its role in pharmaceutical marketing, what are some of the key points that marketers need to know to stay and ahead of the curve today? This year's market data reveals trends to help companies to more intelligently incorporate digital strategies into brand planning. We've reviewed some of the overarching themes and takeaways in the section below.

Evolving Use of TV, DVR, and Online Video

Digital video recording, faster broadband speeds, and an increase in rich media content have transformed the way that consumers obtain news, entertainment, and information. Less than half of U.S. adults watch all of their television programs live when it airs – with acne and attention deficit hyperactivity disorder (ADHD) patients leading the pack among condition groups watching streaming or downloaded TV programs on the Internet. How are pharmaceutical companies accounting for these segments which may not be able to be reached through traditional channels? Some brand teams are starting to experiment with online video and other rich media promotion, but a few examples have already shown that digital marketing faces the same regulatory challenges as other forms of DTC advertising.

Top Condition Groups Watching Streaming or Downloaded TV Programs on the Internet

Position	Condition
1	Acne
2	Adult ADHD
3	Eczema
4	Allergies
5	Bipolar Disorder

Among U.S. adults (18+) among conditions where sample >60
Source: Manhattan Research
Cybercitizen Health™ v5.0 (2008)

Patients Engaging in Health

Over 60 million U.S. adults are Health 2.0 consumers – reporting to use social media applications for healthcare and medical purposes. These outlets have become important resources for patients and caregivers seeking to connect with others for advice and treatment experiences, offering a convenient and – to an extent – anonymous way to connect with others dealing with similar conditions. Popular activities include visiting health-related message boards, reading and contributing to health blogs, posting health content online, and using online patient support groups.

Also, a growing number of patients are rating prescription drugs and treatments on sites like iGuard.org, DailyStrength.org, Patients Like Me, and WebMD. A visit to DailyStrength.org reveals almost nine thousand reviews of Zoloft and over five and a half thousand reviews of Seroquel – demonstrating how important it is for companies to consider how to best monitor, solicit, or respond to reviews

comments in these forums.

Cybercitizen Health™ found that a consumer's condition is a critical factor in determining a patient's likeliness to engage in Health 2.0 activities. It's not just younger audiences using these types of resources with audiences such as fibromyalgia, cancer, and depression patients reporting to be avid users of health related social media.

Going Mobile for Health

Consumers using mobile devices to manage their healthcare are still early adopters, but are increasing in number - over 10 million U.S. adults currently use their cell phones and PDA/smartphones to look up health and medical information.

Many advertisers, especially those in pharma, have been wary about jumping full force into the mobile marketing arena understandably so, considering the historically fragmented mobile landscape and a lack of defined standards. But a growing market is there and new platforms from major players like Research in Motion and Apple are opening up new ways to engage with consumers in the space. A lack of understanding of how to effectively integrate mobile marketing into brand plans is holding many back, with most of the examples we've seen so far being limited to patient compliance programs. But opportunities do exist for innovative marketers - especially for those looking to reach high user mobile health condition groups like irritable bowel syndrome and bipolar disorder patients.

Key Takeaways for Pharmaceutical Companies

Know the Macro Trends – What is New Media Today?

In light of where pharmaceutical consumer marketing has come today – and where it's heading in the near future – it's critical for brand teams to be educated in the latest trends and best practices in new media and digital marketing. Of course agency partners are valuable for providing expertise and tactical execution, but if pharmaceutical marketers don't have a solid grasp on the wide breadth of digital strategies available to them, they may be missing out on channels that are most relevant to their particular audience. Education is key in consultation from a vendor-neutral expert, training sessions and learns, conferences, and other tactics can help employees get up to speed on at least the basics.

Understand Your Therapeutic Category

In looking at the 100+ therapeutic segmentations covered in Cybercitizen Health™, we found that condition profile has a significant influence on one's online health activities and behaviour. A new media strategy that proved successful for one brand may not resonate at all with another's target audience – brand marketers need to utilize market data and analysis to gain an understanding of the media mix and preferred health resources of their therapeutic category.

Figure Out Your New Media Plan

Once marketers understand their target audience's media preferences, the ball is in their court to use the knowledge to form brand strategies and campaigns. Market analyst and agency partners can guide brand teams on how to best use new channels to communicate with patients in a relevant and authentic way.

Meanwhile at the advertising spending war Columnists in the advertising trade magazines have questioned the value of DTC advertising. While it might generate some consumer knowledge or inquiries of a newly introduced product, there does not seem to be any long-term effects on brand demand by consumers. In the wake of a scandal over the hidden dangers of a heavily promoted branded pain reliever, the introduction of a different new product included a promise by the company to refrain from any consumer-oriented advertising for one year. It is hard to believe that a company would so quickly give up a promotional tool if it felt it was important for long-term consumer awareness and prescription sales, so it is possible that the company also questioned the actual value of expenditures on consumer advertising. The new scandal tied criticisms of DTC average

advertising gave the company an easy way out of expensive spending on a practice of questionable value.

But then, there are so many variables in prescription decisions, every decision on promotional spending is filled with uncertainty, and valid questions exist of each specific practice's pragmatic utility. In a highly competitive business, with a short shelf-life on a prescription brand name, each pharmaceutical manufacturer is encouraged to maintain a loud and strong spending voice. Advertising and promotional spending almost becomes an arms race of sorts, with spending on marketing increasing as fast as successes in research and development on new products. In turn, the expensive marketing becomes are added target for blame in the high costs of drugs. (5)

The need for post marketing surveillances is underscored by the inherent uncertainty that arises when a new drug enters the market. The randomized control trials used by the FDA to approve new drug applications are considered to be the gold standard for demonstrating the efficacy of drugs. However, the post approval effectiveness of drugs is unclear since clinical trials do not mimic "real world" conditions for a variety of reasons. First, individuals represented in the clinical trials may be very different from those in the post approval population. In an article for the *New York Times Magazine*, Gary Taubes explains the problem:

"Clinical trials invariably enroll subjects who are relatively healthy, who are motivated to volunteer and will show up regularly for treatments and checkups. As a result, randomized trials 'are very good for showing that a drug does what the pharmaceutical company says it does,' David Atkins, a preventive-medicine specialist at the Agency for Healthcare Research and Quality, says, 'but not very good for telling you how big the benefit really is and what are the harms in typical people. Because they don't enroll typical people.'" (Taubes 2007. p 56) (6)

While the business climate for pharma companies has changed dramatically in the past five years, the pharma business model has not kept pace.

Declining R&D productivity, rising costs of commercialization, increasing payor influence and shorter exclusivity periods have driven up the **The** cost per successful launch to $1.7 billion and reduced average expected returns on new investment to the unsustainable level of 5%. Mergers conceived to build scale will not improve returns. Pharmaceutical companies need new business models to restore healthy financial results. Four inter-related building blocks can provide the new foundation: focusing R&D efforts and commercial capabilities; making use of product and capability partnerships; providing customer solutions (not just "therapeutics"), and creating a business unit based organization model instead of a functional one. Companies need to find a combination of these building blocks that makes best use of their strengths, improves returns and manages risk. Breaking out of the blockbuster mentality — the quest for larger and larger opportunities in whatever disease areas they may occur—will require planned experimentation, aggressive use of partnerships, and eventually a far-reaching transformation in the way most pharma companies organize to compete. (7)

The product's life cycle - period usually consists of five major steps or phases: Product development, Product introduction, Product growth, Product maturity and finally Product decline. These phases exist and are applicable to all products or services from a certain make of automobile to a multimillion-dollar lithography tool to a one-cent capacitor. These phases can be split up into smaller ones depending on the product and must be considered when a new product is to be introduced into a market since they dictate the product's sales performance.(8)

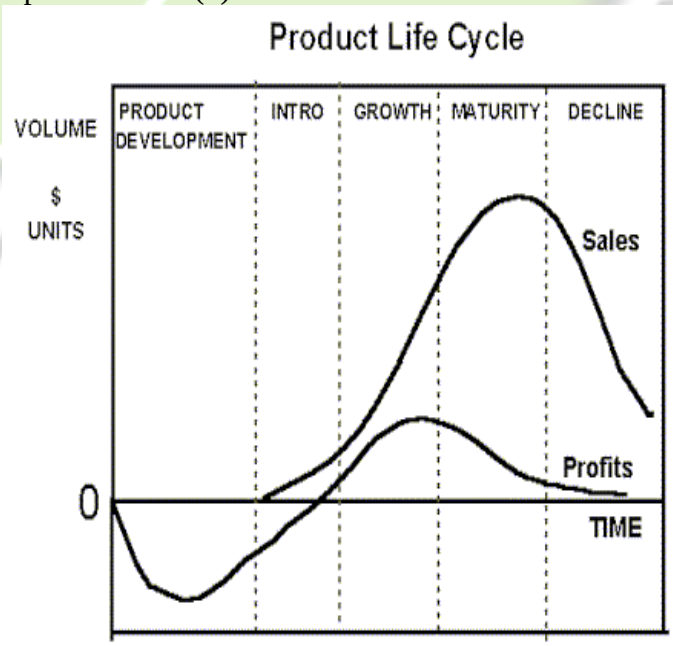


Figure: Product Life cycle (9)

Social Media Landscape

Social media is a broad categorical name for the latest Web2.0 interactive websites & services. The key differentiator of social media vs. the previous generation of sites is that people are now much more involved in generating their own content. User generated content is content that site visitors build or post themselves, usually on sites they do not own. It's now *collaborative participation* that's key to social media growth. Right now, social media for pharma companies is in kind of a "land grab" or more accurately, "strategy grab," phase. The companies that can lever the power of these tools the correctly will rapidly gain market share as they discover how valuable the information can be. (10)

> *The pharma companies that **engage the right way** will be the market leaders in the future. The opportunities in social media are truly massive...*

How Digital is Shaping the Future of Pharmaceutical Marketing

Technology has prompted drastic changes in the marketing world over the past decade, and pharmaceutical marketing has not been excluded from this evolution. Faced with shifting consumer and physician media preferences and shrinking budgets what is a smart pharmaceutical marketer to do? The task is best summed up by the words of English naturalist Charles Darwin, "It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change." So change you must. The following paper overviews the latest consumer and physician digital health trends, explores digital marketing examples, and shares helpful resources for staying up-to-date on the latest digital pharma news and information. (11)

> Internet-savvy physicians are no longer an emerging group – nearly all physicians are online for professional purposes weekly or more.

The Indian Pharmaceutical sector is highly fragmented with more than 20,000 registered units with severe price competition and government price control. It has expanded drastically in the last two decades.

The industry has enormous growth potential. Factors listed below determine the rising demand for pharmaceuticals.

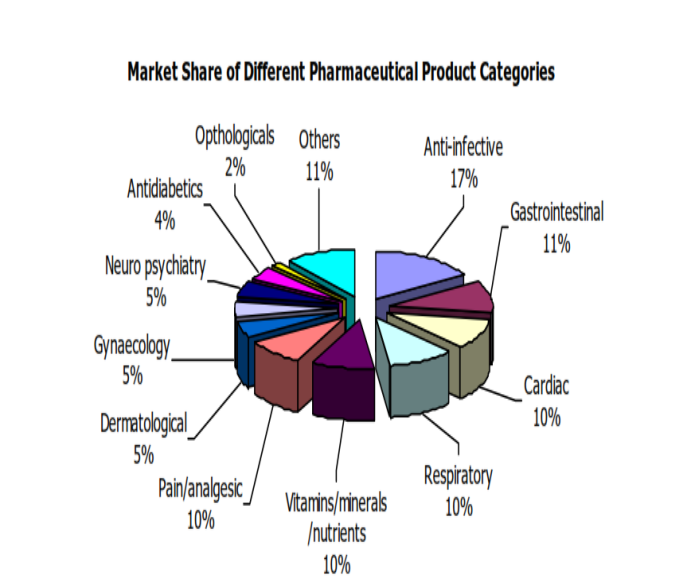
The growing population of over of a billion

Increasing income

Demand for quality healthcare service

Changing lifestyle has led to change in disease patterns, and increased demand for new medicines to combat lifestyle related diseases.

More than 85 per cent of the formulations produced in the country are sold in the domestic market. India is largely self-sufficient in case of formulations. Some life saving, new generation under-patent formulations continue to be imported, especially by MNCs, which then market them in India. Overall, the size of the domestic formulations market is around Rs160 billion and it is growing at 10 per cent per annum. (12)



Marketing Authorization Of Pharmaceutical Products With Special Reference To Multisource (Generic) Products: A Manual For Drug Regulatory Authorities

As outlined in WHO's Guiding Principles for Small National Drug Regulatory Authorities an important task for a drug regulatory authority (DRA) is to institute a system which subjects all pharmaceutical products to premarketing evaluation, marketing authorization and post marketing review to ensure that they conform to required standards of quality, safety and efficacy. Because it has responsibilities in public health, in most countries the DRA is located in, linked to or reports to the Ministry of Health. This manual is intended to provide guidance to countries which do not already have a fully functioning system of premarket 2.

evaluation and market authorization, and have a particular interest in the assessment and authorization of multisource (generic) pharmaceutical products. Many of the principles apply to other groups of medicines (such as complex biological and 'alternative' preparations), but the details may be specific to multisource products.

For the purposes of this manual, the term *drug regulatory authority* means a network that administers the full spectrum of drug regulatory activities, including at least the following functions and others:

Marketing authorization for new products and variation of existing authorizations;

Quality control laboratory testing;

Adverse drug reaction monitoring;

Provision of drug information and promotion of rational drug use;

Good Manufacturing Practice (GMP) inspections and licensing of manufacturers, wholesalers and other distribution channels;

Enforcement operations;

Monitoring of Drug Utilization.

In some regulatory systems the functions of an individual DRA may be more limited. The manual may still be used when, for example, the DRA is confined to marketing authorization activities. The manual provides detailed guidance on the structure and operation of those functions of a DRA that deal with premarket evaluation and marketing authorization, also known as *drug registration.* The other activities are a necessary complement to the marketing authorization function but are not discussed in detail in this document. The principles underpinning premarket evaluation and the marketing authorization process are discussed in WHO's Guiding Principles for Small National DRAs .

The advice in this manual is intended to be independent of local political and legal structures. Instead of being prescriptive, it describes options from which governments can select the most suitable path, depending on current circumstances.

Marketing authorization applications can be classified broadly in three groups, which comprise applications for:

1. Products containing new chemical or biological active pharmaceutical ingredients (APIs);

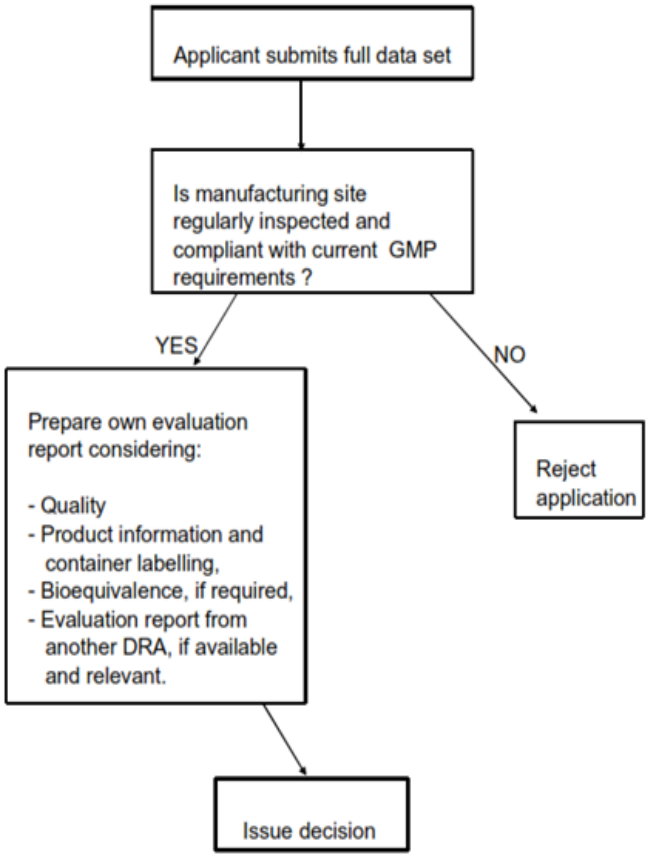
2.*Multisource pharmaceutical products (generic products):* that is, new marketing authorization holders, formulations, or sources of *well established drugs*;

3. Variations to existing marketing authorizations.

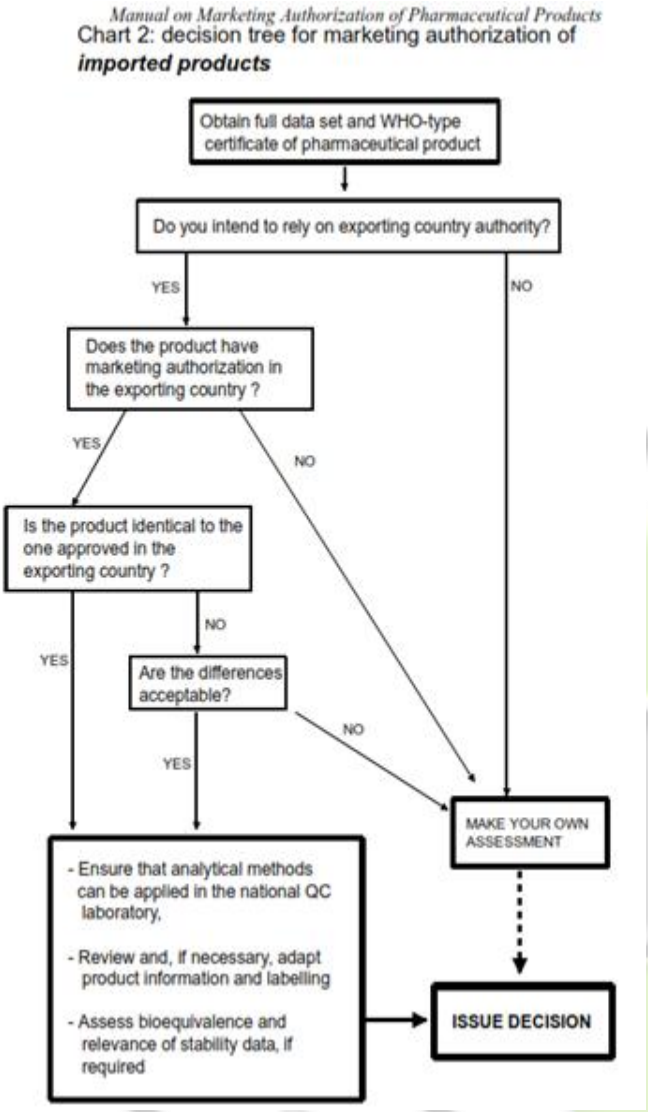
Evaluation of the complex toxicological and clinical data which accompany new chemical entities requires resources and experience that are usually found only in national DRAs with substantial funding and skills. Countries with more limited resources may wish to give priority to *well established drugs*. They can then wait the outcome of detailed premarketing evaluation of safety and efficacy, and post marketing surveillance of safety, by the well resourced authorities before considering issuing marketing authorizations for newer drugs ("Collaboration with other DRAs"). If a *new drug* appears to be important for an endemic disease, a report may be available on request from one of the well resourced DRAs.

A number of existing WHO guidelines that are directly relevant to this manual are reproduced in full as annexes. Updates of these guidelines are issued from time to time, and it is the current issue that will usually be the most relevant. Key terms used in the manual are defined in the Glossary.

Chart 1: decision tree for marketing authorizations of ***domestic products***



of students based on demographic and socioeconomic data.



It has been estimated that pharmaceutical companies spend $1.7 billion every year promoting their products to physicians in Canada. At least $21 billion are spent every year on drug promotion in the United States. Although pharmaceutical marketing campaigns are primarily directed toward practicing physicians and residents, medical students are targeted as well. The goal of this study was to assess medical student attitudes toward pharmaceutical promotion in a Canadian academic centre. A questionnaire was designed to assess the attitudes of medical students about pharmaceutical promotion, including the acceptability of receiving various gifts and incentives. The survey was administered to first, second, and fourth-year medical students at the University of Western Ontario (London, Ontario, Canada). Statistical methods were employed to compare subpopulations

Some 81% of students were not opposed to interacting with drug companies in medical school. Medical students felt comfortable accepting gifts of low monetary value, such as lunches (75%) and penlights (74%), but were willing to accept gifts of higher monetary value if the gifts served an educational purpose, such as textbooks (65%) and drug company sponsored educational seminars (66%). 17% of students said that if presented with a choice of drugs identical in terms of price, efficacy, and effectiveness, they would prescribe the drug from the company that provided them with financial incentives. Statistical analysis showed no differences in responses among the different years of medical students. There were some differences in responses between medical students who had a doctor parent compared to those who did not have a doctor parent. Medical students are generally not opposed to interacting with or receiving gifts from pharmaceutical companies. Insights gained from this study raises issues that may be of interest to medical educators concerning the attitudes of the future physicians in Canada.(14)

The force that drives the sales that keeps Coke, Nike, and BMW at the top of their markets. But what is branding? Does it work? More to the point, can it work in the complex and closely regulated world of medical marketing? Pharmaceutical marketers may incorporate branding elements and techniques in their advertising, but they cannot actually build a brand. Those who are trying to do so are kidding themselves and don't truly understand the meaning of brand. Loyalty to a brand can outweigh price, forcing even the biggest managed care organizations to change their formulary preferences. It can also drive the sale of a two-dollar bottle of water." I call it the personification of a product. A brand is what sticks to the roof of your customer's brain. It's memorable. And it's what differentiates a product in the marketplace. Branding is an exercise in perception. … Positioning says the product is square. Branding says the same thing with flair."(15)

Optimizing the marketing and sales model

There are several reasons Asian companies should review and adjust their current marketing and sales models. Although there is growth in the Asian markets, they are not immune to the challenges facing the industry at large, especially with the current economic downturn, which will only exacerbate these challenges. The downturn is also fuelling already intensified market competition in the region as multinational companies look toward Asia for opportunities to compensate for slowing growth in the West. And with buying processes becoming more and more **DTC ADVERTISING & DRUG PRICES / SPENDING**

complicated—due to the increased number of stakeholders influencing prescriber drug choice—revisiting marketing and sales models becomes more critical than ever.

In the past, pharmaceutical efficiency projects have concentrated mainly on manufacturing, support services, and research and development. Companies have employed a variety of methodologies and tools, including "lean" and "six-sigma" approaches. The concept of lean is to continually improve speed as well as efficiency and drive sustainable reductions in waste and unnecessary cost, while six-sigma strives to continually improve quality towards zero defect. The combination of these—lean sigma—has been successfully used in the manufacturing environment and is now used in distribution and logistics to drive productivity while maintaining high quality and customer focus.

The same methodology has also been deployed in sales and marketing to produce similar results, concentrating on customers and growth.

To gain the benefits of the lean sigma approach in a sales and marketing setting—that is, driving more productive and quality stakeholder relationships while eliminating waste and unnecessary cost—pharmaceutical companies need to rethink their use of the most-common marketing channels. (16)

Pharmaceutical Sales and Marketing processes can be classified under three main categories:

Business-to-Business

Marketing

Sales

It is commonly claimed that advertising results in higher prices, but experts agree there is no direct relationship between marketing and the price of medicines. According to Emory University professor Paul Rubin, Ph.D., "Economic theory suggests there is no predictable link between advertising for a product and the price of that product. Advertising sometimes can result in higher prices, sometimes in lower prices." Based on an analysis comparing 33 drugs that were advertised directly to consumers and 43 that were not, Professor Rubin concluded that "there was no link between advertising and price changes."

Comments from the Federal Trade Commission (FTC) to the FDA in December 2003 also suggest that advertising does not increase prescription drug prices, stating that, "[DTC advertising] can empower consumers to manage their own health care by providing information that will help them, with the assistance of their doctors, to make better informed decisions about their treatment options…Consumers receive these benefits from DTC advertising with little, if any, evidence that such advertising increases prescription drug prices."(18)

Does DTCA Expand Treatment? *DTCA and Prescription Drug Sales*

Understanding the relationship between DTCA and prescription drug sales is an important preliminary step in understanding the effects of advertising on public health.

For instance, studies showing that advertising resulted primarily in "business stealing," an increase in one brand's market share over its competitors would challenge the argument that DTCA expands treatment for under diagnosed conditions. Several studies have examined the relationship between DTCA and pharmaceutical sales. The weight of evidence to date suggests that DTCA has a significant impact on total class sales but little influence over individual product market share. A recent study of the impact of DTCA on aggregate sales of prescription drugs in five therapeutic classes with high DTCA expenditures found that although DTCA was associated with an increase in sales to the therapeutic class as a whole, it had no impact on market share. Studies of marketing in the H2-antagonist and nonsedating antihistamine classes suggest that DTCA has a very small impact on market share relative to the effect of physician-directed marketing efforts.

These studies used aggregate data on sales and marketing and thus did not take into account the effects of individual characteristics on demand for prescription drugs. These studies also relied on aggregate measures of price and therefore did not account for the enormous variation in From serves the public interest. (20)

prices of prescription drugs across different types of consumers or for the presence of insurance. (19)

IFPMA Code of Pharmaceutical Marketing Practices

The promotion of prescription medicines to healthcare professionals is a vital extension of the process of searching for and developing new and better means of preventing and treating illness. Promotion and the dissemination of educational information ensure that the full benefits of the years of work and enormous expenditure of skill and money will be made available promptly to the patients of the world. In all its activities the pharmaceutical industry believes that high standards should be defined and respected and is convinced that, so far as its marketing activities are concerned, self discipline is the process which best

Evidence-based Medicine to Marketing-based Medicine: Evidence from Internal Industry Documents.

While much excitement has been generated surrounding evidence-based medicine, internal documents from the pharmaceutical industry suggest that the publicly available evidence base may not accurately represent the underlying data regarding its products. The industry and its associated medical communication firms state that publications in the medical literature primarily serve marketing interests. Suppression and spinning of negative data and ghost writing have emerged as tools to help manage medical journal publications to best suit product sales, while disease mongering and market segmentation of physicians are also used to efficiently maximize profits. We propose that while evidence-based medicine is a noble ideal, marketing-based medicine is the current reality. (21)

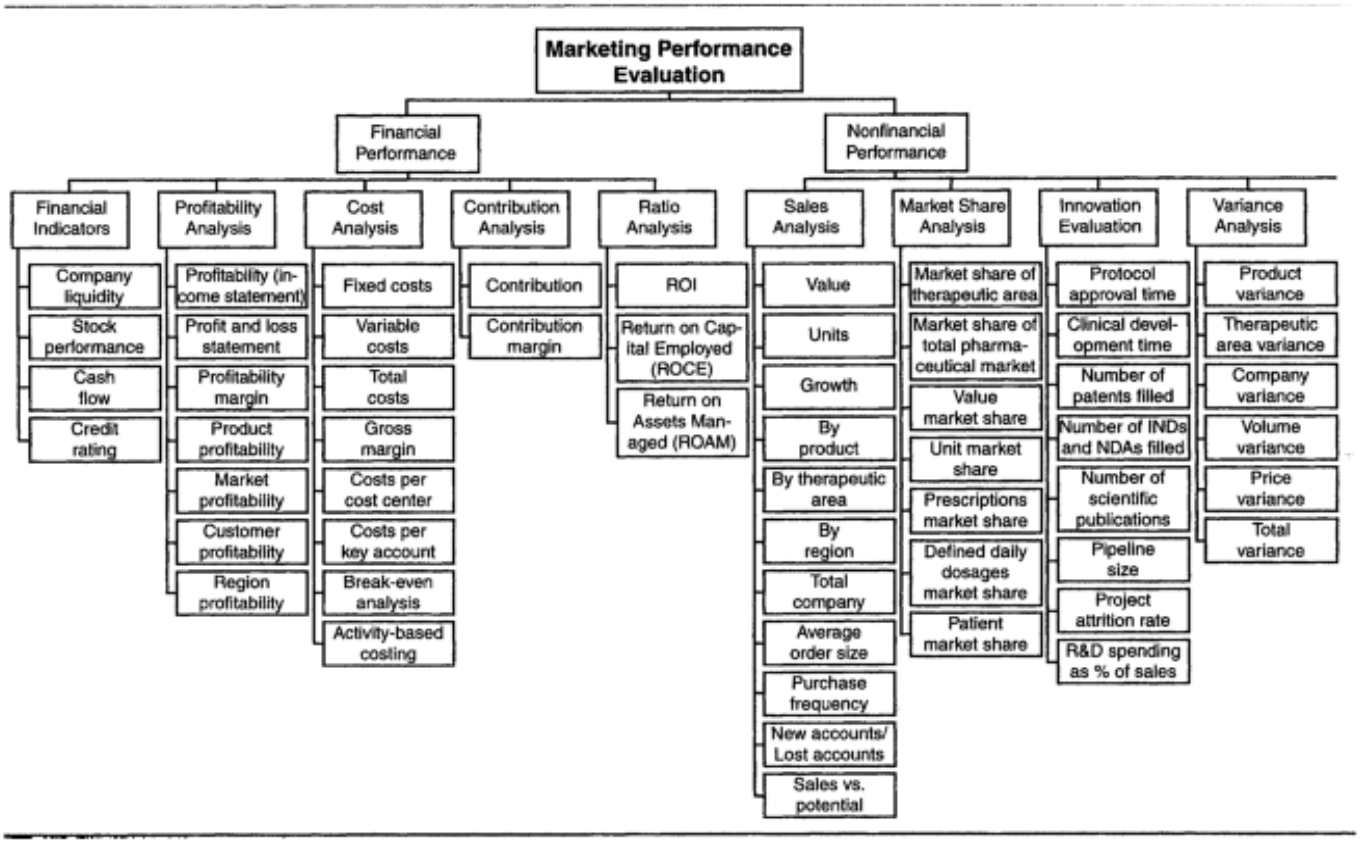


Figure: MARKETING PERFORMANCE EVALUATION (22)

Relationship Marketing Builds Value for Pharmacy Services:

The philosophy and practice of relationship marketing offer new insights and strategies for building a successful pharmacy practice. This approach emphasizes the importance of developing and maintaining lasting relationships with patients and other partners, such as physicians, through the provision of high-quality clinical services. Relationship marketing requires thoughtful use of market segmentation and niche marketing techniques to identify selected groups of patients who are most likely to benefit from specific pharmacy services. Each interaction with these patients should be deliberate, with the dual purpose of improving health and building a rewarding, long-lasting professional relationship. By developing pharmacy services that meet

patients' needs and deliver on promises, pharmacists can build lasting relationships that are the foundation of a successful and rewarding practice. (23)

From this new estimate, it appears that pharmaceutical companies spend almost twice as much on promotion as they do on R&D. These numbers clearly show how promotion predominates over R&D in the pharmaceutical industry, contrary to the industry's claim. While the amount spent on promotion is not in itself a confirmation of Kefauver's depiction of the pharmaceutical industry, it confirms the public image of a marketing-driven industry and provides an important argument to petition in favour of transforming the workings of the industry in the direction of more research and less promotion. (24)

The FDA-regulated, scientifically-based information conveyed by pharmaceutical company representatives to physicians helps disseminate knowledge about medicines. Providing physicians with up-to-date information about pharmaceutical products supports appropriate care decisions and can lead to better health outcomes. Bringing information about new treatments into the health care system often is challenging and requires significant effort. Even many years after new types of medicines are introduced, a large share of patients who should be using them according to clinical practice guidelines go untreated. in fact, these treatment gaps are often viewed as serious public health problems that lead to poor patient outcomes and high health costs—both human and economic—that could have been avoided. Pharmaceutical representatives also provide physicians and other health care professionals with information about new studies and clinical data, new dosing information, and updates on safety and risk information, timely access to this information helps support effective patient care, and pharmaceutical. (25)

Current global pharmaceutical market (26)

Pharmaceutical products consist of two main components— the active pharmaceutical ingredient (API) or bulk drug and the formulation (i.e., a suitable final dosage form). Generally, APIs are either produced by chemical synthesis or are of plant, animal, or biological origin. Patents are critical aspects in the development and marketing of pharmaceutical products. A patent can be obtained for a new drug molecule, a new indication for an existing molecule, or for a new drug delivery system of an existing product. The World Trade Organization (WTO) has decided to enforce a product patent life of 20 years in all countries. In other words, if drug development and FDA approval takes approximately 10 years from the first disclosure of the molecule, a pharmaceutical company gets only 10 years of exclusivity to market the formulation. The excessive cost of drug development forces drug prices to remain high while the drugs are protected by patents. In addition, not every project leads to a marketed product, so successfully marketed products must cover the costs incurred for the failed projects

The current pharmaceutical market is worth more than $317 billion (4). The major contributing regions are the United States, Japan, and Europe. GlaxoSmithKline, Pfizer, and Merck are the top three companies in the pharmaceutical market, with annual sales of $23.5, 22.6, and 20.2 billion, respectively. Pfizer has the largest R&D budget, which is hovering at $4.4 billion. Most of the major US pharmaceutical companies showed double-digit growth in 1999.

Drug prices vary from country to country. Citizens of developing countries cannot afford expensive medicines that are under patent. Multinational companies (MNCs) must either choose to sell a product at a low price in these countries or face the challenge of piracy or parallel trade. Types of diseases in Third World countries may vary from those in developed nations. However, because of the lack of sizable profits from distributing pharmaceutical products in Third World countries, MNCs are reluctant to conduct research to develop new drug molecules to treat these diseases.

Market Trends (27):

1. In terms of the global market, the Indian Pharmaceutical market currently holds a modest 1-2% share, but it has been growing at approximately 10% per year.
2. The size of the domestic pharmaceutical market is larger than export market. However, owing to the growth of global generics market, stringent price controls in the domestic market, and better margins, the export market is growing much faster than the domestic market.
3. Traditional branded generics presently dominate the Indian pharmaceutical market but the future will see strong growth in the specialty branded generics and patented drug segments.
4. Drugs for diabetes and cardiovascular diseases are expected to see the fastest growth among all therapy areas

during 2007-2011.

5. The retail pharmaceutical market in India is presently highly unorganized; however, a vast opportunity exists for the organized market.

6. Over the last few years, Cipla, Ranbaxy and GlaxoSmithKline are controlling the top three positions in the Indian pharmaceutical market.

7. Between 2000 and 2005, domestic pharma industry grew at a CAGR of about 9.5 percent and touched the market size at $5.13 billion by March 2005. However, towards March 2006, the growth rate jumped to 11 percent to hit the market size of $5.7 billion. It is estimated that it will hover around 13.6 percent during 2006 - 10 to take up Indian domestic pharma market size at $ 9.48 billion by 2010.

8. The country's pharmaceutical market is a US$ 7.3 billion opportunity with the domestic retail market expected to cross the US$ 10 billion mark in 2010 and be worth an estimated US$ 12-13 billion in 2012.

9. The Indian pharmaceutical industry ranks 4th in terms of volume (with an 8 per cent share in global sales) globally.

10. In terms of value it ranks 13th (with a share of 1 per cent in global sales) and produces 20-24 per cent of the world's generic drugs (in terms of value)

FUTURE SCENARIO (28)

Greater Manufacturer Influence on Distribution?

European manufacturers have had to cope with what they see as growing negative trends and challenges with product distribution:

Parallel trade.

Out-of-stock situations.

Consolidation of wholesalers into major pan-European groups.

Vertical integration into pharmacy retailing by pan-European wholesalers.

Pharmacies tied to wholesalers even in countries where chains are disallowed.

Rebranding of wholesalers as healthcare companies offering services further along the value chain.

Pharmacists as gatekeepers to physicians' prescribing decisions.

Generic substitution rights for pharmacists.

Emergence of counterfeit products in the legal supply channel.

Pharmacy increasingly the key point of sale.

Potential product diversion from Europe to the US.

The response has been attempts to secure the integrity of the supply chain, minimise stock diversion and make distribution more cost-effective from a manufacturer's perspective. Methods include stock management systems, direct distribution, price control at the point of dispensing, improved product traceability (visibility of the entire process from the end of the production line to the patient), and anti-counterfeiting measures. The issues that led to these measures will not go away, so an even tighter grip on distribution will be maintained in future.

Is the Future Direct to Pharmacy?

While it has been possible to use LSPs to go direct to pharmacy in some countries with OTCs and generics, and to use prewholesalers or homecare companies to reach the patient with some high-cost/high-touch/low-volume speciality injectables, the bulk of medicines distributed still follow the traditional supply route. It is likely to remain this way.

Given a choice, community pharmacies prefer to deal with wholesalers. This is exemplified by the dual channel distribution situation in Spain with Pfizer's products since 2004. Only 5% of distribution is currently direct, with 95% routed through those 40 wholesalers that Pfizer has contracted with, Cofares estimates.

DTP with an entire product portfolio mix of fast and slow moving brands has so far been limited to the UK. Why the UK? A number of contributory factors are likely:

• incoming parallel trade is the highest in Europe and outgoing parallel trade is growing;

• most of the recorded cases of counterfeits reaching patients have occurred in the UK;

• there is a high level of 'grey market' trade in the UK;

• the 'big three' pan-European wholesalers dominate and control not only wholesaling but a high percentage of community pharmacies too;

• unlike the situation in most other EU countries, UK wholesalers earn a margin on the manufacturer-set public price, so this margin reduces the manufacturer's share; and

• the UK is a more liberal market environment.

To get a distributor to accept a lower fee to provide logistics services than the normal wholesale margin for wholesaling services, the trade-off must be that a significantly greater volume of business is offered. An exclusive deal would allow negotiation of the keenest terms. However, in choosing a single UK distributor, regardless of competition issues and the findings of the OFT's market study, Pfizer may be a one-off. The company said it had been in advance negotiations with all three large wholesalers, with the aim of using all three, although all but UniChem subsequently dropped out.

The scope for future single-agency deals in the UK is constrained as geographical coverage by even the largest wholesalers is limited. The two top wholesalers combined can only cover 85-95% of any manufacturer's sales, with the top three needed to cover in excess of 97%, according to research by Taylor Nelson Sofres/AT Kearney. The situation is mirrored elsewhere in Europe, except in the single-channel markets of Finland and Sweden. Wholesalers that operate only in distinct regions are especially a feature of the Belgian, Greek, Portuguese and Spanish markets. In announcing changes to their UK distribution arrangements, Napp and Sanofi-Aventis have taken a different approach from Pfizer and AstraZeneca. Rather than appointing one or more wholesalers as LSPs, they have both opted to retain the traditional wholesaler model, but with a limit on the number of wholesalers used. If curtailing the growing power of the 'big three' is one of the motivations for these changes by manufacturers, then giving all the business to these same three wholesalers seems a paradox.

For community pharmacists, Pfizer's move has made them confront their future role. Earnings from performing added-value services for the healthcare system will increasingly take funds away from their old core function of medicines supply paid for through dispensing fees and procurement discounts.

Brands[1]	API[2]	Company[3]	Indication[1]	Expected year of 1st formulation patent expiry[4]	Global sales (US$ million)[1]		US retail pharmacy sales (US$ million)[4,5]	
					2001	2002	2001	2002
Allegra®	Fexofenadine hydrochloride	Aventis	Allergies	2004	1,666	1,919	1,164	1,430
Allegra-D®	Fexofenadine hydrochloride	Aventis	Allergies	2004	1,666	1,919	390	440
Celexa®	Citalopram hydrobromide	Forest Laboratories	Depression	2004	714	1,088	1,140	1,515
Diflucan®	Fluconazole	Pfizer	Fungal infections	2004	1,066	1,112	425	451
Flonase®	Fluticasone propionate	GSK	Allergies	2004	726	801	701	766
Flovent®	Fluticasone propionate	GSK	Asthma	2004	1,335	1,174	738	588
Altace®	Ramipril	King Pharma/Wyeth	Hypertension	2005	285	481	300	475
Amaryl®	Glimepiride	Aventis	Diabetes	2005	452	546	175	195
Biaxin®	Clarithromycin	Abbott Laboratories	Bacterial infections	2005	1,159	1,102	370	268
Biaxin XL®	Clarithromycin	Abbott Laboratories	Bacterial infections	2005	1,159	1,102	252	274
Duragesic®	Fentanyl	J&J	Pain	2005	875	1,203	530	753
Zithromax Z-pack®	Azithromycin dihydrate	Pfizer	Bacterial infections	2005	1,506	1,516	1,075	1,079
Zithromax Susp®	Azithromycin dihydrate	Pfizer	Bacterial infections	2005	1,506	1,516	291	317
Zithromax®	Azithromycin dihydrate	Pfizer	Bacterial infections	2005	1,506	1,516	159	186
Zofran®	Ondansetron	GSK	Nausea and vomiting	2005	865	1,062	303	382
Actos®	Pioglitazone hydrochloride	Takeda	Diabetes	2006	553	973	934	1,173
Pravachol®	Pravastatin sodium	Bristol-Myers Squibb	Elevated cholesterol	2006	2,101	2,266	1,420	1,543
Protonix®	Pantoprazole sodium	Wyeth	GI disorders	2006	561	1,071	542	1,085
Zocor®	Simvastatin	Merck & Co.	Elevated cholesterol	2006	5,245	5,580	2,739	3,099
Zoloft®	Sertraline hydrochloride	Pfizer	Depression	2006	2,366	2,742	2,153	2,355
Ambien®	Zolpidem tartrate	Sanofi-Synthelabo	Insomnia	2007	1,073	1,346	1,048	1,276
Clarinex®	Desloratadine	Schering-Plough	Allergies	2007	N/A	598	N/A	472
Coreg®	Carvedilo	GSK	Hypertension	2007	392	459	285	377
Imitrex Oral®	Sumatriptan	GSK	Migraine	2007	1,098	1,197	814	853
Imitrex Inj®	Sumatriptan	GSK	Migraine	2007	1,098	1,197	199	196
Lamisil Oral®	Terbinafine hydrochloride	Novartis	Fungal infections	2007	906	874	543	582
Norvasc®	Amlodipine besylate	Pfizer	Hypertension	2007	3,582	3,846	1,767	1,792
Zyrtec®	Cetirizine hydrochloride	Pfizer	Allergies	2007	990	1,115	975	1,080
Zyrtec Syrup®	Cetirizine hydrochloride	Pfizer	Allergies	2007	990	1,115	150	190

At a strategic level, with the growth of billion dollar brands and the huge amount of money being invested in this industry, we need to ask whether we are really equipped with the skills and the practice to be able to launch those brands.

AstraZeneca is not unique with its objective to is launch five brands in two and half years, so what the impact of that on successful launches in the marketplace and within the marketing companies? What are the implications of such objectives in terms of the capabilities and skills required to achieve those product launches?

Another very important requirement is the need to look

into investor relations and to have an understanding of what the City expects from the company at a senior managerial level. Another skill gap may be global business finance — how does a company work its business finance on a global basis?

Finally, there is the issue of attracting and retaining the best people in the industry, which is critical to the success of any organisation and is also a very real problem in the pharmaceutical industry at the moment. Developing the skills of employees is now seen as one of the attractions of a good employer and ensuring good personal skills development acts as a retention tool for good people.

In **conclusion**, it seems likely that it will be the large global companies that will succeed, just on a cost and volume basis. The most successful, however, will be those with good communication and consistency of key messages. They will need to develop global brands with sustainable long-term competitive advantage. They will require absolutely a solid pipeline of new chemical entities through 10–20 years in the future. With that increased accountability, however, also comes a sound corporate responsibility. (30)

References :-

1.en.wikipedia.org/wiki/Pharmaceutical_marketing

2.A Review Of Marketing Strategies Work By Different Pharmaceutical Companies Saurabh Kumar Saxena, Department of Management, Rakshpal Bahadur Management Institute Bareilly-243001, India, Mail: saxena100rabh@rediffmail.com

3.EJBO Electronic Journal of Business Ethics and Organization Studies, Pharmaceutical Marketing – Time for Change By: Joan BuckleyJB@UCC.IE

4.Cybercitizen Health® v8.0, Catch the New Pharmaceutical Marketing, Trends and Strategies for Reaching Today's Healthcare Consumer Released Q4 2008Copyright 2008 · Manhattan Research, LLC

5.www.csa.com/discoveryguides/direct/review.pdf

6.The Effects Of Pharmaceutical Marketing And Promotion On Adverse Drug Events And 10."Pharma 2.0: Heading Toward Social Media Marketing." White Paper, AgentD.com Marketing Strategy Consulting

11.How Digital is Shaping the Future of Pharmaceutical Marketing Digital Health Trends ePharma Marketing Strategies Resource Guide Released Q3 2009

12. Corporate Catalyst India , India's Pharmaceutical Industry

13. Joseph Barfett*, Brent Lanting, Julian Lee, MSc, Michael Lee, MSc, Victor Ng, BSc, Peter Simkhovitch, Pharmaceutical Marketing to Medical Students: The Student Perspective MJM 2004 8: 21-27Copyright © 2004 by MJM McGill Journal of Medicine

14.downloadedfrom www.julielaitin.com /pdf/ **Branding**.pdf

15.www.deloitte.com/assets/.../SEA%20**sales**%20and%20marketing.pdf

16.hosteddocs.ittoolbox.com/Tata100307.pdf

17.www.phrma.org/issues/sales-**marketing**

18.Ethics and the Pharmaceutical Industry, michael a. santoro,thomas m. gorrie, cambridge university press

19.http://www.ifpma.org/ethics/ifpma-marketing-code/about-ifpma-marketing-code.html

20.i.bnet.com/.../spielmans-parry-ebm-to-mbm-jbioethicinqu-2010.pdf

21.Pharmaceutical Marketing A Practical Guide, Dimitris Dogramatzis, Taylor and Francis Press

22.http://www.medscape.com/viewarticle/436606_11

23.http://www.medscape.com/viewarticle/571493_6

24.http://www.phrma.org/sites/default/files/187/phrmamarketingbrochureinfluencesonprescribingfinal.pdf

25.http://tarainnovations.com/assets/AnalysisIndianPharma.85135952.pdf

26.http://www.indialawoffices.com/pdf/pharmaceutical market.pdf

27.http://www.scripintelligence.com/multimedia/archive/00000/BS1353_124a.pdf

28.http://www.touchbriefings.com/pdf/790/8-chawla.pdf

29.http://www.gmpua.com/Marketing/worldmarket/cim/8660493.pdf