Chapter - 6

RESULT & DISCUSSIONS

The first question is on factors responsible for selecting for prescription of a brand. These factors emerged from the initial pilot study and literature research. According to Karim et al (2011), tangible rewards to physicians by pharmaceutical firms lead to prescription loyalty. The second major discovery is that the professional values of pharmaceutical sales representatives (PSR) impact considerably on doctor prescription loyalty. A study conducted in Brazil by Wagner et al (2011) mentions the process of medical drug prescription in Brazil is positively correlative with all the conferred constructs. However, the study found that the 5 projected hypotheses demonstrated varied degrees of positive result levels, starting from robust to weak. Notably, factors like the characteristics of the drug and information obtainable on a drug have the weakest effect, whereas the cost-benefit ratio of a drug includes a moderate effect. The drug's brand and its associated advertising have the strongest result. The subsequent question was asked to doctors:

What are the most important considerations while prescribing a particular brand? Arrange in order of priority (1 – Most important 5- Least important)

☐ Price

☐ Quality of the product

☐ Regular visits of Medical Representative
The result is given in table-1. Total 300 valid answers were tabulated and is given below:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of product</td>
<td>40%</td>
<td>25%</td>
<td>15%</td>
<td>17%</td>
<td>3%</td>
<td>1</td>
</tr>
<tr>
<td>Regular Visits</td>
<td>30%</td>
<td>20%</td>
<td>20%</td>
<td>16%</td>
<td>14%</td>
<td>2</td>
</tr>
<tr>
<td>Price</td>
<td>20%</td>
<td>30%</td>
<td>18%</td>
<td>18%</td>
<td>14%</td>
<td>3</td>
</tr>
<tr>
<td>Scientific data</td>
<td>7%</td>
<td>15%</td>
<td>28%</td>
<td>29%</td>
<td>21%</td>
<td>4</td>
</tr>
<tr>
<td>Provided</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any Other</td>
<td>3%</td>
<td>10%</td>
<td>19%</td>
<td>20%</td>
<td>48%</td>
<td>5</td>
</tr>
</tbody>
</table>

**Results Table-16: Important Reasons for selecting a brand for prescription by a doctor: N-300**

As seen from the above table, the most important factor which is considered by the doctors while prescribing a particular brand is Quality of that particular brand. Around 40% of the doctors who were interviewed preferred quality and hence ranked it as the most important of the various other factors listed.

After quality, the most preferred factor is the regular visits of the salesmen of that particular company. Around 30% of the doctors prefer that if the salesmen of the
company visit them more frequently, they would prescribe that particular brand more. This is contrary to finding of Goel (2013) which say that doctors turn to published literature and lectures to make their decisions. Scientific data is ranked 5th in terms of influencing factor in our study. Pharma firms offer grants to researchers and fund conferences. The acceptance of free drug samples is among the more contested problems among doctors. Whereas doctors might even see this as an act of charity by drug firms, which can benefit their patients living in impoverishment, it's really simply another way of accelerating familiarity with drugs. Once a doctor offers a patient a drug sample, she should learn the name, dosing and side effects of the drug. Although the sample is free initially, once a patient’s condition is well-controlled with this medication, the doctor is prone to keep using this drug since it “already works for patients.” He is then prone to prescribe it to other patients because she remembers the details of the drug. In a market where the most recent drugs are sometimes simply slight variations on existing products, this sort of familiarity is crucial to pharmaceutical sales. (Goel, 2013). Same author (2013) mentions about study in US which says that in 2007, a national survey of doctors in the US found that 94% had some form of relationship with the drug industry. While twenty eight percent reported directly receiving payment for consulting, enrolling patients in a study, or lecturing, a striking seventy eight percent reported receiving drug samples and eighty three percent reported receiving food in their workplaces.

Attractive, well-dressed, eye-catching drug reps with pearly smiles and glossy flow charts still wait in waiting rooms. Lectures and conferences still occur wherever lunch is purchased by the pharmaceutical industry. Research studies are still published wherever investigators receive grants from drug corporations and unfavorable results are still obscured. Hospitals and medical clinics are still snowed under in pens,
brochures, coffee mugs sporting names & notepads. This doesn’t even include free drug samples lining backroom shelves. Representatives have been known as "detail-men" as they acquire and use detailed personal information on doctors. The reps are under intense competitive pressure against other drug companies with similar products. Beyond meeting at the doctor’s office, or during leisure time, the symposium allows reps to discuss with doctors about their preferences while a drug researcher presents a new drug to an audience (Anonymous (2007). Regular visit to doctors influences his prescription habits. The term regular visit is important as regularity is the missing link. This could be the reason for this point becoming the second most important factor in influencing the doctors

Controversy exists over the very fact that physicians have regular contact with the pharmaceutical industry and its sales representatives, who pay an outsized sum of money annually promoting to them by manner of gifts, free meals, travel subsidies, sponsored teachings, and symposia. (Wazana, 2000)

Third important finding is the importance of price on prescription behavior of doctors. Pricing is important as many Indian patients cannot afford to buy the medicine. This becomes important especially when patients are poor. Even Latin America results show that there are important variations within the prices of identical drugs across the Central American countries, similarly as pharmaceutical corporations follow different pricing methods. (Mariano Rojas (2009). This gives an advantage to companies to create product differentiation due to this attributes. This is interesting finding of out study. This means that pricing still plays a role in prescription even after much progress of Indian populations. The study of price discrimination is crucial to
understanding how markets end up rationing such an essential product as pharmaceutical drugs.

In the world of drug pricing, the sole constant is modification. New regulations, generally radical interventions, and increasing stress on value-based assessments are raising the hurdles to promote access and medicine consumptions. Companies will need to demonstrate that their brand adds value to patients and they will have to offer a package of products and health services that the market not only wants and needs but is willing to pay a premium for.

For many companies, the risks of entering new markets or launching new products or services are quite substantial (Boush & Loken, 1991; John & Loken, 1992). One way of handling these risks is to use the familiarity and status, or rather, the image of brands as leverage for enhancing credibleness and unperceivable quality (Rao, Qu & Ruekert, 1997). Moreover, a robust company brand image is used to increase communication efficiency, notably if the new market (Keller & Aaker, 1997). This we studied in our following research by using the following questions.

Most managers believe that pharmaceutical market is getting more and more crowded each day and so is the number of pharma OTC and prescription drugs in the market. This therefore is creating the jobs of managers more and more difficult (Bhangale, 2008). The measurement of marketing efforts of pharmaceutical firms towards patients and doctors form the fundamental basics of pharmaceutical marketing effectiveness. To promote their prescription drugs, these firms spend billions of dollars annually. Our next question is related to find-out the reasons for prescribing a product based on medical representatives from MNC and Indian companies.
While advertisements in journals, direct mailers and the gifting of letter pads and other brand reminders were less effective, the reputation of the company, launch meetings, quality of the drug, brand names and creating a good rapport with the doctor influenced prescription behavior significantly. Amongst the twenty most effective methods that influence a prescription, the commonly used method of giving samples was not among them. Factors that still influence prescription are a reputable company and product quality. A physicians’ choice of brands is influenced by Pharmaceutical marketing. If the strategies involved in public relations are more expensive, they are found to be more effective. Less effective strategies have proven to be the sending of mails and journal advertisements. In the last few years the relations between the physicians and pharmaceutical companies have received considerable attention.1,2 Pharmaceutical marketing differs from other types of marketing because the consumer i.e. the patients are not the target audience, whereas the target audience of the pharmaceutical companies are the physicians prescribing the medicines. On behalf of the patient, it is the doctor who makes the decision for them. Physicians are privileged with the right of recognizing the need of their patients and recommend medications for the well-being of their patients. Hence, the relation between the physician and pharmaceutical companies may create a conflict between the ethical professional interest of a doctor and his financial self-interest.

The advertisements and printed promotional material such as visual aids used by the medical representatives, posters / banners at exhibition & conference stalls as well as direct mailings to doctors usually include rational-product / therapy / clinical use related and emotional - humour / curiosity / ego-gratifying appeals (Sadek H, Henderson Z (2004). The information would be made interesting and educative, if a good balance between these two appeals were achieved. Often, marketing interests tip
the scales in favour of emotional aspects. Therefore, the next study is pertaining to reasons for prescriptions of a doctor based on representative survey.

Table: 17. What are the most important considerations while prescribing a particular brand? Arrange in order of priority (N=65)

<table>
<thead>
<tr>
<th>What are the most important considerations while prescribing a particular brand. Arrange in order of priority</th>
<th>Indian</th>
<th>MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Quality of the product</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Regular visits of Medical Representative</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Scientific data provided</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

According to representatives from MNC price is the third parameters for influencing the prescription of a doctor when compared to representatives, which rated price as the important factors for prescription.

According to Bala, Ram, and Bhardwaj, Pradeep (2010) the pharmaceutical industry has always used representatives to target physicians (detailing), who are a key link in sales and market share for prescription pharmaceuticals. More than eighty percent of 4 physicians see drug representatives or sales personnel regularly (Campbell et al, 2007). Studies in China (Liu S, 1995) and Australia (Streiner and Norman 2007) showed that sales personnel do not significantly affect a doctor’s prescription behaviour. As per our study Medical representatives regular visit is ranked 4th by
MNC compared to second rank by MR of Indian companies. It could be that MNC effectiveness due to better communication may not have felt the need for regular visit.

A physicians’ choice of brands are influenced by Pharmaceutical marketing. While advertisements in direct mailers and journals were among the least effective strategies, the most effective strategy was shown to be public relations, especially the rapport with the doctor. Personal selling by sales persons and giving letter pads and even samples were rated less effective strategies (Narendran, & Narendranathan, 2013). The pharmaceuticals resort to many ways in marketing their product. Presenting gifts, sponsoring education, offering holidays and giving away free lunches have been all criticized as inducements that induce a doctor to prescribe without a scientific basis. This study shows that pharmaceutical marketing influences the prescription behaviour of physicians.

How important is the Company’s image & reputation, while making a decision to prescribe a particular brand (1 – Most important 5 – Least important)

<table>
<thead>
<tr>
<th>Rating</th>
<th>Number of doctors – Mumbai (N = 255)</th>
<th>%</th>
<th>Number of doctors – Pune (N = 45)</th>
<th>%</th>
<th>Total (N = 300)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>153</td>
<td>60%</td>
<td>27</td>
<td>60%</td>
<td>180</td>
<td>60%</td>
</tr>
<tr>
<td>2</td>
<td>59</td>
<td>23%</td>
<td>9</td>
<td>20%</td>
<td>68</td>
<td>23%</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>9%</td>
<td>5</td>
<td>11%</td>
<td>28</td>
<td>9%</td>
</tr>
</tbody>
</table>
Table 18: Results for questionnaire – question 1

Majority of the doctors (60%) will prescribe the products based on image of the company. If we add, most important and important it is 83%. There is no difference between Mumbai and Pune doctors. Therefore, pharmaceutical companies should do activities which will improve the image.

The overall image of pharmaceutical industry as a whole is suffering badly. Only 34% of respondents gave pharma a “good” or “excellent” rating for reputation. Pharma trailed retail pharmacists (62%), medical device companies (50%), private healthcare services (46%), biotechs (44%), not-for-profit health insurers (39%) and generic drug makers (37%). Only for-profit health insurers trailed pharma with 24% (John LaMattina, 2013). The same author reported that patient groups listed a number of areas where pharma was rated as having a “poor” record including:

- A lack of fair pricing policies resulting in untoward profits (50%);
- A lack of transparency in all company activities (48%);
- Management of adverse event news (37%);
- Acting with integrity (32%).

There were variety of themes that supported these poor ratings: lack of inexpensive medicines, an awareness that the industry is preoccupied with medication that provide
only short-term health benefits, inappropriate marketing of medication and lack of transparency in reporting results from negative clinical trials. In fairness to pharmaceutical companies, it’s been making an attempt to enhance in these areas. However it's time for the industry to redouble its efforts.

- Transparency of payments to healthcare professionals – Physicians are priceless to corporations in terms of offering advice on clinical trials, publishing and discussing the results, leading these trials, etc. Doctors are reasonably paid for these services. However patients have a right to know just how much doctors are being paid. Apparently, Pfizer has been publishing ALL physician payments since 2010. There’s no reason why all corporations can’t be doing this. Such action would make the present problems on enactment of the “Sunshine Act” moot.

- Transparency of clinical trial data – The industry is usually accused of concealing negative data. The industry currently posts all clinical trials it's conducting on a government web site, ClinicalTrials.gov. The problem is that it's been slow to enter the final results from these studies in a timely matter. The industry has to conform to the expectation that all results be entered within thirty months of the last patient finishing the study. To point out how transparent a corporation is on data disclosure, GSK last October declared a policy that it would enable access to outside scientists to probe all the data it holds on clinical trials. Other corporations need to emulate this policy.

- Stop the illegal detailing of medication – there's nothing more depressing for an advocate of the pharmaceutical industry to read about than one more multi-
billion dollar fine being levied against a drug manufacturer for attempting to sell a drug for which it’s not approved. I notice that corporations have taken internal steps to stop this; however the practice should stop if corporations are going to restore faith that they exist to benefit patients and not just for profits.

- Drop the TV Ads –Companies are allowed to advertise their medicine in accordance to FDA guidelines. However the ads may be doing additional damage than good. The litany of side-effects that has to be mentioned is desensitizing and probably doesn’t provide a sense of the true risk-benefit for that medication. Plus, the general public views these ads to be a waste of funds that would otherwise be invested in R & D or in lessening drug prices.

The pharmaceutical business plays a valued and distinctive role in health care. The discovery and development of the latest medication is largely driven by it. The cure for Alzheimer’s disease or any major treatment will likely come from these corporations. Unfortunately, the importance of this industry is lost on the overwhelming majority of patients thanks to the attacks on the industry’s believability. It’s time to take the required steps to alter this negative perception (www.forbes.com as seen in Oct.2013).

Quality and image plays a role in prescription of a product. Quality of representatives, packaging, communication from the company could play a role in building up the image, Digital marketing may influence the image too. Pharmaceutical companies will therefore have to collaborate much more closely with everyone in the healthcare arena to provide a range of products and services from which patients can pick and
choose all but the core prescription, both to differentiate their offerings more effectively and to preserve the value of the medicines they make.

Perceived quality is the customer’s perception of the general quality or superiority of a product service with reference to its supposed purpose, relative to alternatives. A lot of research has been done on whether or not branding plays a role in consumer purchases however not much work has been done on perceived price.

**Do you consider Multinational Pharmaceutical Company’s brands superior to Indian Companies brands in term of quality?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Number of Doctors replied Yes</th>
<th>Percentage of doctors replied Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors in Mumbai (N = 255)</td>
<td>151</td>
<td>59%</td>
</tr>
<tr>
<td>Doctors in Pune (N = 45)</td>
<td>29</td>
<td>64%</td>
</tr>
<tr>
<td>Overall (N = 300)</td>
<td>180</td>
<td>60%</td>
</tr>
</tbody>
</table>

**Table 19: Results for questionnaire – question 3**

As seen from the above table, 60% of the doctors consider Multinational Pharmaceutical Company’s brands superior to Indian Companies brands in term of quality.
In Mumbai, however, around 151 of the 255 doctors who were interviewed, i.e. around 84.31% of them were of the opinion that they consider Multinational Pharmaceutical Company’s brands superior to Indian Companies brands in terms of quality.

In Pune, around 29 of the 45 doctors who were interviewed, i.e. around 5.6% of them were of the opinion that they consider Multinational Pharmaceutical Company’s brands superior to Indian Companies brands in terms of quality.

Thus, we see that the doctors consider Multinational Pharmaceutical Company’s brands superior to Indian Companies brands in terms of quality.

The Indian pharmaceutical industry is currently ranked world class, in terms of range of medicines manufactured, technology and quality. From sophisticated antibiotics and complex cardiac compounds to simple headache pills, nearly each sort of medication is currently created indigenously.

Through the introduction of a system of product patents since 2005, Indian industry has nowadays become a worldwide exporter of high quality generic medication. Indian exports pharmaceuticals to several countries across the globe, as well as the U.S., Germany, France, Russia and United Kingdom.

Multinational firms that have entered the market search out the domestic industry's skills and infrastructures to spice up their research and manufacturing activities within the subcontinent and additionally open up this immense, nearly untapped market.
India’s largest pharmaceutical firms are attaining global-player standing as existing markets expand, and new ones open up, for top quality, affordable generic medication. Indian companies have commenced an unprecedented shopping spree of overseas acquisitions to establish themselves in these highly profitable markets and boost their capability, as demand continues to increase.

In 2009, India had over one hundred twenty U.S. Food and Drug Administration (FDA) approved plants and around eighty four United Kingdom Medicines and healthcare products regulatory agency (MHRA)-approved plants, with the ability to manufacture products with exceptional quality standards.

Most of these plants have multiple approvals from regulatory authorities in Canada, Australia, Germany and South Africa.

(Source: http://www.investindia.gov.in/?q=pharmaceuticals-sector)

The study of Abdullah A. Alghasham (2012) included 772 physicians from different affiliations. The majority of physicians (n=741, 96%) reported that they knew enough about the therapeutic value of generic drugs. The majority (75%) reported that they knew the price differences, and this knowledge helped 72% of them to switch to generic prescription medication. Most physicians (79%) support generic substitution; however they indicated that there are certain clinical situations where they prefer to use brand drugs. Physicians reported receiving visits and samples more often from representatives of brand name firms. Physicians failed to report a major distinction in pressure from patients to prescribe either generic or brand medication. Most physicians had a positive perspective towards the govt. role in assuring the standard of local drug products (80%) and in enforcing physicians to prescribe generic
medication (85%). This is contrary to our finding that states that MN brand has higher quality perception. Physicians play a key role in generic drug prescribing, however their behavior is plagued by many determinants. Quality can play a role in selecting even generics.

According to Sazia et al (2012), Male practitioners with practice experience of 11-15 years showed positive perception towards the standard of multinational products. The bulk of respondents believed that their prescribing decision is influenced by medical representatives (n=117; 56.8%). More than three-quarters of the respondents expressed their wish to prescribe low cost medicines in their practice (n=157; 76.2%). More than one third of the respondents expressed their uneasiness to prescribe products from all local manufacturers (n=72; 35%).

The requirements and necessities for health care services are towards an upward shift. This can be attributable to ageing population, augmented life expectations additionally as new developments in treatment modalities [Eichenholz J, 2001)]. A worldwide increase in health care costs poses a burden of affordability of medication. In developing countries out-of-pocket payment is as high as eighty percent of health care spending (WHO, 2004).

Product perceptions is influenced by product experience. Consistent with influences on perceived sensory experiences (e.g., Levin and Gaeth 1988, Nowlis and Shiv 2005), we can anticipate that the higher perceived quality of brands offering may lead consumers to believe that the brand performs higher. If such an effect happens, it might imply that providing high brand can have a long-term impact by generating not only higher trial rates, but additionally a better probability of repeat purchase.
Therefore, building a powerful brand is all about creating the strongest positive perception within the minds of your customers. Building a powerful brand is all about creating the strongest positive perception in the minds of customers.

Chronic disease requires long term treatment compared to acute. But acute treatment requires immediate results. Based on the various therapeutic areas, the pharmaceutical market may be generally divided into two classes – Acute and Chronic.

Acute Segment – It includes diseases that usually last for a short duration and includes therapies like anti-infectives, pain-killers or analgesics etc.

Chronic segment – It embodies diseases that are recurring in nature and include lifestyle diseases. This includes therapies like cardiovascular (CVS), anti-diabetics, cancer etc. In most cases, ailments within the chronic segment guarantee regular consumption of medicines for the lifetime of patients. Thus, the chronic segment is forecasted to increase faster than the acute segment going ahead. Now the Indian Pharmaceutical Market is more than sixty percent acute with the rest being chronic. The share of chronic is predicted to increase going forward. Anti-infective is the largest contributor (17%) to the domestic sales followed by Cardiovascular and Gastrointestinal. Anti-diabetics followed by Neurology (CNS) and Cardiovascular have showed the highest growth.

Therefore, a global brand may have edge over local brand while prescribing drugs. Therefore, this question is taken up for research.
Do you prefer to prescribe Multinational company’s brands in chronic cases more than in acute ones?

☐ Yes  ☐ No.

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Number of Doctors replied No</th>
<th>Percentage of Doctors replied No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors in Mumbai (N = 255)</td>
<td>175</td>
<td>68%</td>
</tr>
<tr>
<td>Doctors in Pune (N = 45)</td>
<td>35</td>
<td>78%</td>
</tr>
<tr>
<td>Overall (N = 300)</td>
<td>210</td>
<td>70%</td>
</tr>
</tbody>
</table>

Table 20: Results for questionnaire – question 4

We use Z test and compare proportions. H0: p = 0.5, H1: p > 0.5, Zcal = 6.8, Z tab = 1.96 Since Zcal > Z tab, we reject H0 and conclude that majority of doctors do not prefer to prescribe MNC brands in chronic cases more than in acute ones.

As seen from the above table, 70% of the doctors do not prefer to prescribe Multinational company’s brands in chronic cases more than in acute ones.

In Mumbai, however, around 175 of the 255 doctors who were interviewed, i.e. around 68% of them were of the opinion that they do not prefer to prescribe Multinational company’s brands in chronic cases more than in acute ones.

In Pune, around 35 of the 45 doctors who were interviewed, i.e. around 78% of them were of the opinion that they do not prefer to prescribe Multinational company’s brands in chronic cases more than in acute ones.

Thus, we see that the doctors overall do not prefer to prescribe Multinational company’s brands in chronic cases more than in acute ones.
The domestic pharma market will thus continue to grow rapidly (~15% sales CAGR over 2009-13) buoyed additional by stronger penetration of semi-urban/rural areas and rising share of chronic therapies. McKinsey estimates that the domestic pharma market can more than double to attain sales value US$ 20bn by 2015.

As seen from the above article, the doctors prefer to prescribe more of branded Drugs provided by the MNC rather than a generic brand. Even the patient, being the customer as well as the consumer of the drug, also prefers to buy only the branded drug, rather than a generic one.

But the article also mentions that, the Indian market is feasible only for 40% of the drugs related to chronic diseases. Thus, the India market is not developed in the chronic drugs supply compared to acute drug supply as compared to the MNC market. However, as per our findings, the doctors do not prefer to prescribe Multinational company’s brands in chronic cases more than in acute ones.

**Do you prefer Multinational company’s brands, if they are available under the same brand name across the world?**

☐ Yes  ☐ No
<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Number of Doctors replied No</th>
<th>Percentage of Doctors replied No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors in Mumbai (N = 255)</td>
<td>215</td>
<td>84.31%</td>
</tr>
<tr>
<td>Doctors in Pune (N = 45)</td>
<td>25</td>
<td>55.6%</td>
</tr>
<tr>
<td>Overall (N = 300)</td>
<td>240</td>
<td>80%</td>
</tr>
</tbody>
</table>

**Table 21: Results for questionnaire – question 5**

$Z_{cal} = 13.2, Z_{tab} = 1.96$, We reject $H_0$ and conclude that majority of doctors do not prefer MNC brands if they are available under the same brand name across the world.

As seen from the above table, 80% of the doctors do not prefer Multinational company’s brands, even if they are available under the same brand name across the world.

In Mumbai, however, around 215 of the 255 doctors who were interviewed, i.e. around 84.31% of them were of the opinion that they do not prefer Multinational company’s brands, even if they are available under the same brand name across the world. In Pune, around 25 of the 45 doctors who were interviewed, i.e. around 5.6% of them were of the opinion that they do not prefer Multinational company’s brands, even if they are available under the same brand name across the world. Thus, we see that the doctors overall do not prefer Multinational company’s brands, even if they are available under the same brand name across the world. Global brand do not influence the prescription behavior.

In several product categories, consumers are progressively faced with a alternative between international and local brands. In today’s international marketplace, it's necessary for marketers to understand how consumers make this selection and why
some consumers prefer international brands to local brands. (Özsomer, 2012). Same author mentions that consumers’ likelihood of purchasing the global brand in the presence of a local brand in a linear structural relations framework.

In many markets, global brands compete with strong local counterparts. Local brands are developed for and tailored to the unique needs and desires of local markets. Despite being described as “only obtainable in a specific geographical region” (Dimofte, Johansson, and Ronkainen 2008, p. 118), local brands have their own strengths, such as perceptions of uniqueness, originality, and pride of representing the local market. Local brands have traditionally benefited from a high level of awareness and close relationships with consumers in their countries. As Dimofte, Johansson, and Ronkainen (2008) reveal, local brands not only mirror but also help outline the character of the local market. As such, some of these brands are perceived as local icons in their markets insofar as they are associated with symbols of the local culture, heritage, and country. While local brands can more easily and convincingly build authenticity perceptions with unique associations to their local identity and culture (Ger 1999), a handful of global brands, such as Apple, have succeeded in building and maintaining high authenticity perceptions (for further details, see Belk and Tumbat 2005) even though they are available throughout most of the world. This is contrary to our finding which is more confined to pharmaceutical brands. The Indian pharmaceuticals market has characteristics that make it unique. Firstly, branded generics dominate, making up for seventy to eighty per cent of the retail market. Secondly, local players have enjoyed a dominant position driven by formulation development capabilities and early investments.
One of the articles which is based on the preferences of the rural population for pharmaceutical brands whether being MNC or not, the below mentioned points were the findings:

- A majority of the respondents were of the opinion that the prescriptions from the physicians were high.

- A good majority of the respondents were of the opinion that the rural consumers demand the MNC products.

- The most preferred MNC products were the health supplements, followed by pain killers.

- As far as the common problems while selling the MNC products were concerned, competition was ranked first on the Garrett ranking technique.

- A good majority of the respondents were satisfied with the price quality combination.

- Price – Quality preferences were high quality and medium pricing.

- A good majority of the respondents were satisfied with the price quality combination.

(Source:https://www.google.co.in/url?)

The above research contradicts our finding which states that Majority of the doctors do not prefer MNC brands. Some multinational pharma companies are already taking
measures to reach a larger patient population by reducing drug prices and increasing affordability. Multinational firms say they face the classic globalization quandary in India. It’s true that India has a vast number of poverty ridden patients, however not all the patients are poor. "There is great wealth in India," Ian Read, chief executive officer of Pfizer, the world’s largest drug maker, told news agency Reuters in London on March twelfth, the day Natco got its license. "There are perhaps one hundred million individuals in India who have wealth similar to or larger than the common European or American, who do not pay for innovation (BT, 2012). Doctors never prefer or prescribe MNC drugs due to high rates and thus it supports our findings of doctors not preferring the MNC brands (BT, 2012). India is currently among the top 5 pharmaceutical emerging markets globally and could be a front runner in a wide range of specialties involving a complex drug manufacture, development, and technology. The Indian pharmaceutical business could be a highly knowledge based industry that is growing steadily and plays a significant role within the Indian economy (IBF2012). Global demand for generic medicine from Indian corporations is booming as developed nations battle rising healthcare costs. As a result, generics corporations are progressively focusing on expanding presence in comparatively under-penetrated markets (i.e. France, Spain & Italy), branded generic markets of East Europe and niche areas ((IBF2012).

Research and originality of products requires high investment on drug development. Therefore, global brands tend to have higher price. Therefore, this question was asked to doctors
Do you feel price of Multinational pharmaceutical company’s brands is generally very high?

☐ Yes  ☐ No

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Number of Doctors replied Yes</th>
<th>Percentage of Doctors replied yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors in Mumbai (N = 255)</td>
<td>200</td>
<td>78.43%</td>
</tr>
<tr>
<td>Doctors in Pune (N = 45)</td>
<td>40</td>
<td>88.89%</td>
</tr>
<tr>
<td>Overall (N = 300)</td>
<td>240</td>
<td>80%</td>
</tr>
</tbody>
</table>

Table 22 : Results for questionnaire – question 6

\[ Z_{cal} = 13.2, \ Z_{tab} = 1.96. \] We reject Ho and conclude that majority of doctors feel that price of MNC brands is generally very high.

As seen from the above table, 80% of the doctors feel that the price of the pharmaceutical drugs is usually high when it comes to the multinational companies.

In Mumbai, however, around 200 of the 255 doctors who were interviewed, i.e. around 78% of them were of the opinion that the price of the pharmaceutical drugs is usually high when it comes to the multinational companies.

In Pune, around 40 of the 45 doctors who were interviewed, i.e. around 88% of them were of the opinion that the price of the pharmaceutical drugs is usually high when it comes to the multinational companies.

Thus, we see that the doctors overall feel the MNCs charge high for the pharmaceutical drugs in the Indian Market.
The following paper explains why the prices of the pharmaceutical drugs are high for MNCs as compared to the Indian companies.

As per the Supreme Court’s order, the central government of India prepared a National List of Essential Medicines (NLEM), but kept it outside the ‘List of Essential Drugs’ (LED) as LED continues to remain under cost-based price control under DPCO 1995.

That is the present Drug Prices Control Order of Manmohan Singh government! The ailing folks of India are being fleeced by high costs. These represent a significant share of healthcare expenditure and a considerable part of the common man’s total expenditure.

Many people don’t even understand that medicines are one of the highly taxed commodities, next only to petroleum merchandise. The central government earns vast revenues from medicines and the ailing folks of India need to pay money for it. One of the high taxes of medicines is the excise duty collected by the central government that claims that it collects a ‘low’ --- only eight per cent --- excise duty on medicines! This is in addition to value added tax being collected on medicines.

Excise duty on a commodity is collected on the production value. However, in 2005 the central government issued an order that it'd collect excise on a medicine’s maximum retail price (MRP). on why excise duty ought to be computed on selling price and not on production cost is beyond understanding; what's clear is merely that the more drug firms increase the costs of their medication, the more excise duty the central government gets, so the whole burden is shifted on to the ailing folks of India.
Multinational pharmaceutical companies are expected to bear the brunt of the government’s decision to implement the drug price Control Order, 2013. MNC pharma players are the market leaders in most of the segments wherever price control will be enforced. Further, firms catering to medicines that make up the scope of price control, and selling their products at prices less than the ceiling value, will have to freeze their costs, as per the recent changes created within the policy. Ceiling costs will be fixed at the prevailing price on May 2012, six months before the policy was notified.

For patients the move would lead to costs of medicines under the control reducing by fifty to seventy per cent. Further, the policy can now cover 348 essential medicines as compared to solely seventy four earlier. As a result around thirty per cent of the Rs one lakh crore of domestic revenues will be affected as against only seventeen per cent presently.

The policy has tried to plug loopholes that existed earlier by making it applicable to foreign medicines, provided they fall within the essential medicines list. The policy additionally doesn't permit alteration to the drug which might be used to take the drug out of the scope of price control. If a new ingredient is added, the company will have to be compelled to ask for permission from the pricing authority.

The move, however, will impact earnings of multinationals and other top pharmaceutical corporations that have a good product line of essential medication.
Profits are expected to be impacted by twenty five per cent after implementation of the control order.

The recent addition of freezing costs of these medicines that are being sold at prices less than the ceiling value seems a bit unfair because the corporations were unaware of the ceiling price in May 2012. Whereas those selling their merchandise at prices beyond the ceiling value are going to be asked to scale it back, those selling at costs less than the ceiling value won't get the choice of increasing their selling price.

Along with the price control what will impact the business is the government’s proposal of buying medication worth Rs fifteen thousand crore through the tender process. As tender costs are nearly one-fourth of market costs, trade specialists believe that this purchase is a large chunk of the current market size. These drugs are going to be used for free supply through government hospitals and dispensaries. MNC pharmaceutical company players usually don't participate in these tenders and the government prefers to buy generics and not branded formulations that MNCs produce.

Thus, after this new policy, not only will MNC pharma companies be affected on the price front, but also on the volume front.


The landscape of the pharmaceutical industry has changed dramatically over the past few years. Pricing plays a role in influencing prescription of physicians. However, when pricing remains the same what motivates the doctors to prescribe a brand is studied below:
If the price of two brands with same active ingredients, is the same, one brand is manufactured by a Multinational company & the other by an Indian company, will you prefer the Multinational Company’s brand over the Indian brand.

☐ Yes  ☐ No

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Number of Doctors replied Yes</th>
<th>Percentage of Doctors replied Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors in Mumbai (N = 255)</td>
<td>176</td>
<td>69%</td>
</tr>
<tr>
<td>Doctors in Pune (N = 45)</td>
<td>34</td>
<td>76%</td>
</tr>
<tr>
<td>Overall (N = 300)</td>
<td>210</td>
<td>70%</td>
</tr>
</tbody>
</table>

Table 23: Results for questionnaire – question 7

For table 4, Z cal = 6.8, Z tab = 1.96, We reject Ho and conclude that majority of doctors preferred the MNC brand over the Indian brand if both have same price and same active ingredients.

As seen from the above table, 70% of the doctors do prefer Multinational company’s brands, even if they are available under the same brand name across the world. In Mumbai, however, around 176 of the 255 doctors who were interviewed, i.e. around 69% of them were of the opinion that if the price of two brands with same active ingredients, is the same, one brand is manufactured by a Multinational company & the other by an Indian company, they will prefer the Multinational company’s brand over the Indian brand.

In Pune, around 34 of the 45 doctors who were interviewed, i.e. around 76% of them were of the opinion that if the price of two brands with same active ingredients, is the same, one brand is manufactured by a Multinational company & the other by an Indian company, they will prefer the Multinational company’s brand over the Indian brand.
Thus, we see that the doctors overall say that if the price of two brands with same active ingredients, is the same, one brand is manufactured by a Multinational company & the other by an Indian company; they will prefer the international company’s brand to the Indian brands. MNCs proclaim the exclusivity of their manufacturing process and brands and with that reason increased most of their product costs. The sellers of prescription drugs, as a rule, are oligopolists, not monopolists because the price discrimination based on MNC and local brands assumes (Kenneth G. Elzinga and David E. Mills, 2011). When developing an innovative small molecule, there are certainly a number of issues that might garner significant attention, including those across R&D, manufacturing, supply chain, and other functions within the organization for MNC companies.

The following article (as mentioned yadeepb.wordpress.com/2012) mentions that even though the generics are available at lower cost with same effect, doctors prefer to prescribe only branded drugs. There are generic drugs obtainable, that cost a fraction of what the costly branded medication do, but are as effective as them. Even if a substantial quantity of money would be saved if doctors prescribed only generics, why do doctors still prescribe the costly branded medication?

It’s not fair to say that doctors are on the take – and do this because pharmaceutical companies bribe them to prescribe their drugs. In reality, the matter is far more complex. Like most humans, most doctors, have habits that they follow mindlessly. This suggests that when you’re used to prescribing a specific brand name, you tend to continue doing so if it offers good results, and it’s very arduous to alter these habits, especially as you get older.
Pharmaceutical companies are extremely aware of which is why they spend so much money on promotion to doctors and trying to embed the brand names of their particular drugs in the brains of doctors when they start practice. They know that most doctors will continue to prescribe just that particular brand name – and this is why the major reason doctors do this is out of inertia. Secondly, pharmaceutical firms have perfect the art of marketing to doctors, and spend lots of time and money on ensuring that doctors remember their specific brand name. Companies which manufacture the less expensive generics don’t have as much money to spend on marketing or advertising, as a result of that it’s much tougher for them to induce mind share of the doctor’s mind, which is an extremely expensive piece of biological estate, because hundreds of drug manufacturers contend for it daily. R&D projects that adapt to the influence of local markets have the greatest chance of success at a later time, as they purposefully consider future challenges at the local level (Alex Stojanovic, 2012).

In emerging countries, a brand origin can be classified as either foreign or domestic (Zhou, Yang, and Hui 2010). Country of origin (COO) effect on consumer attitudes toward purchases from different countries has long been recognized in the literature. Country of origin is another important concept in international marketing that has been documented to affect consumer perceptions. COO and Global brands are normally perceived to have better quality. MNC with global brands always have an edge in merging market (Srivastava, 2013). This study is pertaining to quality comparison between Indian and MNC brands.
Quality at affordable price is the key to success of brand in emerging market. Therefore, the study is conducted about the doctors' perception on quality and it perception difference between Indian and global brands.

**Quality of Multinational pharmaceutical company’s brands is better than Indian pharmaceutical company’s brands**

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Number of Doctors replied Agree</th>
<th>% of doctors replied Agree</th>
<th>Number of Doctors replied Somewhat agree</th>
<th>% of doctors replied Somewhat agree</th>
<th>Number of Doctors replied Disagree</th>
<th>% of doctors replied Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors in Mumbai (N = 255)</td>
<td>25</td>
<td>10%</td>
<td>122</td>
<td>48%</td>
<td>108</td>
<td>42%</td>
</tr>
<tr>
<td>Doctors in Pune (N = 45)</td>
<td>5</td>
<td>11%</td>
<td>28</td>
<td>63%</td>
<td>12</td>
<td>27%</td>
</tr>
<tr>
<td>Overall (N = 300)</td>
<td>30</td>
<td>10%</td>
<td>150</td>
<td>50%</td>
<td>120</td>
<td>40%</td>
</tr>
</tbody>
</table>

**Table 24: Results for questionnaire – question 8**

Z cal = 3.4, Z tab = 1.96, We reject Ho and conclude that majority of doctors feel that quality of MNC brands is better than Indian brands.

As seen from the above table, 50% of the doctors somewhat disagree that Quality of Multinational pharmaceutical company’s brands is better than Indian pharmaceutical company’s brands.
In Mumbai, however, around 122 of the 255 doctors who were interviewed, i.e. around 48% of them somewhat disagree that Quality of Multinational pharmaceutical company’s brands is better than Indian pharmaceutical company’s brands.

In Pune, around 28 of the 45 doctors who were interviewed, i.e. around 63% of them somewhat disagree that Quality of Multinational pharmaceutical company’s brands is better than Indian pharmaceutical company’s brands.

As seen from the above table, 40% of the doctors completely disagree that Quality of Multinational pharmaceutical company’s brands is better than Indian pharmaceutical company’s brands.

In Mumbai, however, around 108 of the 255 doctors who were interviewed, i.e. around 42% of them completely disagree that Quality of Multinational pharmaceutical company’s brands is better than Indian pharmaceutical company’s brands.

In Pune, around 12 of the 45 doctors who were interviewed, i.e. around 27% of them completely disagree that Quality of Multinational pharmaceutical company’s brands is better than Indian pharmaceutical company’s brands.

As seen from the above table, 10% of the doctors do agree that Quality of Multinational pharmaceutical company’s brands is better than Indian pharmaceutical company’s brands.

In Mumbai, however, around 125 of the 255 doctors who were interviewed, i.e. around 10% of them do agree that Quality of Multinational pharmaceutical company’s brands is better than Indian pharmaceutical company’s brands.
In Pune, around 5 of the 45 doctors who were interviewed, i.e. around 11% of them do agree that Quality of Multinational pharmaceutical company’s brands is better than Indian pharmaceutical company’s brands.

Thus, we see that the doctors overall disagree that Quality of Multinational pharmaceutical company’s brands is better than Indian pharmaceutical company’s brands.

Existing body of literature by demonstrating the gap that exists in availability of drugs against requirement, for common illness (Amarendranath Mohanty, Nayan Chakravarty, 2013). Therefore, study is conducted to see whether availability of product gives an edge to MNC or Indian Companies.

**Retail availability of Indian pharmaceutical brands is better than that of Multinational pharmaceutical company’s brand**

<table>
<thead>
<tr>
<th>Number of Doctors replied</th>
<th>% of doctors replied</th>
<th>Number of Doctors replied</th>
<th>% of doctors replied</th>
<th>Number of Doctors replied</th>
<th>% of doctors replied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>25</td>
<td>10%</td>
<td>52</td>
<td>20%</td>
<td>178</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>8</td>
<td>17%</td>
<td>32</td>
<td>71%</td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>32</td>
<td>70%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 25: Results for questionnaire - question 9**

\[ Z_{\text{cal}} = 6.8, Z_{\text{tab}} = 1.96, \text{We reject Ho and conclude that majority of doctors feel that retail availability of MNC brands is better than Indian pharma brands} \]
As seen from the above table, 70% of the doctors completely disagree that retail availability of Indian pharmaceutical brands is better than that of Multinational pharmaceutical company’s brand.

In Mumbai, however, around 178 of the 255 doctors who were interviewed, i.e. around 69% of them completely disagree that retail availability of Indian pharmaceutical brands is better than that of Multinational pharmaceutical company’s brand.

In Pune, around 32 of the 45 doctors who were interviewed, i.e. around 71% of them completely disagree that retail availability of Indian pharmaceutical brands is better than that of Multinational pharmaceutical company’s brand.

As seen from the above table, 20% of the doctors somewhat disagree that retail availability of Indian pharmaceutical brands is better than that of Multinational pharmaceutical company’s brand.

In Mumbai, however, around 52 of the 255 doctors who were interviewed, i.e. around 20% of them somewhat disagree that retail availability of Indian pharmaceutical brands is better than that of Multinational pharmaceutical company’s brand.

In Pune, around 8 of the 45 doctors who were interviewed, i.e. around 17% of them somewhat disagree that retail availability of Indian pharmaceutical brands is better than that of Multinational pharmaceutical company’s brand.
As seen from the above table, 10% of the doctors do agree that retail availability of Indian pharmaceutical brands is better than that of Multinational pharmaceutical company’s brand.

In Mumbai, however, around 25 of the 255 doctors who were interviewed, i.e. around 10% of them do agree that retail availability of Indian pharmaceutical brands is better than that of Multinational pharmaceutical company’s brand.

In Pune, around 5 of the 45 doctors who were interviewed, i.e. around 11% of them do agree that retail availability of Indian pharmaceutical brands is better than that of Multinational pharmaceutical company’s brand.

Thus, we see that the doctors overall disagree that retail availability of Indian pharmaceutical brands is better than that of Multinational pharmaceutical company’s brand.

Loss of sales thanks to non-availability of merchandise at the retailers end in the pharmaceutical company distribution setup and lack of visibility of pharmaceutical companies into stock holding and stock movement in the post CFA (Carrying & Forwarding Agent) supply chain were identified as key concern areas.

The survey done by OPPI and EY study and their findings are structured on the following aspects:

- **Effectiveness** of the post CFA supply chain in making merchandise accessible to the end consumer, that manifests in loss of sales over the retail counter
Efficiency of the supply chain in terms of the price of making merchandise accessible to the end consumer, that manifests itself in excess inventory levels within the channel and a month-end ‘skew’ in stockists’ inventories.

Effectiveness—Non-availability leading to sales loss: Loss of sales because of non-availability of merchandise at the retailer’s end could be a reality within the current pharmaceutical company distribution setup. However, the occurrence and quantum of this loss differs across geographies and merchandise categories. The extent of sales loss varies from 0-1% in Metros (across product categories) to up to five in tier two & rural geographies (as high as two hundredth in small OTX brands). The disparity in loss of sales across geographies and merchandise categories may be attributed to supply chain aspects like the reach of the service levels, supply chain, the working capital constraints of stockists, awareness of customers and financial returns to stakeholders.

Efficiency – Lack of visibility of post CFA supply chain leading to excess inventories

one of the key operational reasons for excess inventories within the channel is the lack of visibility of pharmaceutical company corporations into stock holding and stock movement in the post CFA supply chain. Within the current state, visibility of the post-CFA supply chain is restricted, and is traditionally through the visits of the sales force to stockists/retailers as well as through the monthly stock and sale statements of stockists. As a consequence of this opacity within the chain, pharmaceutical company corporations rely on primary sales to stockists as a metric for performance measurement. Driven by
sales targets on primary sales, the sales force might resort to pushing stocks to distributors at month end, which can lead to a month end bias in stockist inventories. Where there are variances in demand and primary sales isn't aligned to secondary sales, there's an inventory pile-up at stockists.

- **Some implications of gaps in distribution efficiency &effectiveness:**

- **Faster decline of heritage OTX brands:** While the findings of the survey indicate a volume sales loss in the range of up to five in OTX brands (up to twenty in small OTX brands), primarily in tier two and rural markets, if corporations are unable to arrest this loss of sales (compounded over ten years), it'd mean a revenue loss of thirty percent to fifty percent. For heritage OTX brands that usually encounter a prescription shift to new molecules, this sort of de-growth can mean quicker erosion of brand equity and hasten their decline. Loss of sales may well be considerably higher for comparatively smaller OTX brands, leading to them being wiped out from the market.

- 'On the contrary, if companies are able to plug the gap in availability of these categories, it would mean a volume growth of 3%-5% every year, which could almost double the size of a heritage brand over ten years. The delta between the two cases is hundred percent to two hundred percent, which stresses the benefits of ensuring availability.

- **Increased pressure of high growth on existing prescription products:** Large pharmaceutical companies typically set targets in correlation with the growth of the pharmaceutical market. In the dearth of growth of OTX brands, and with new product (molecule) launches ceasing to be a key growth
driver after the implementation of the product patent regime, pressure on achieving growth in prescription (Rx) products will be significantly higher.

- **Adverse impact on the growth of existing prescription brands due to conflict of resource allocation:** To manage the pressure of high growth, firms might take into account 2 choices. They will both neglect heritage OTX brands and invest fully in prescription products, which might indirectly contribute to the quicker erosion of heritage brands, or invest the effort of their sales representatives in managing the availability of OTX brands, and thereby reduce from their focus on prescription brands. This might result in a possible conflict of resource allocation resulting in sub-optimal performance in each.

- **Month end sales skew:** Lack of visibility of stock holding and movements in the post CFA supply chain results in corporations counting on primary sales for setting goals. If the aggressive primary sales targets in prescription and OTX categories don't match the actual demand in the market, it leads to month end sales push to stockists.

- **Way forward:** For the problems of distribution effectiveness and efficiency identified, the key levers to handle the root causes are –

  i) Increase visibility of the channel

  ii) Release the working capital at the stockiest

  iii) Guarantee that generated efficiencies are passed down the channel up to retailers
The pharmaceutical distribution and retailing is one amongst the most complicated and less understood aspects of the pharmaceuticals business in India. The rationale for this can be a novel channel characterized by high degree of fragmentation (over 60,000 stockists, semi-stockists and 600,000 retailers), unorganized independent units with inadequate information infrastructure (highly distributed data assets) and high opacity with sparse visibility of the channel beyond the CFA stock points.

While the role of channel is better understood in respect to OTX products, what's probably underestimated is the positive impact of a well-managed OTX portfolio on the performance of ethical merchandise. Therefore we tend to believe, effective channel management isn't solely a tactical necessity but can be a strategic enabler for growth.


Availability of drugs plays a role in prescription of doctors. Bouncing of prescription may not be liked by patients. Therefore availability is the focused area of all pharma companies. In our present study, MNC or Indian companies do not have any edge over each other.

Importance of customers' perceptions and need achievement leads to the development of a positioning statement to communicate the brand's functional values and brand personality (Sanyal et al, 2013). A global image due to availability of product in developed countries may influence the corporate equity.
In order for a brand to succeed, the level of consumer brand awareness necessary for prescriptions and use varies depending upon how and where the doctors make their decision. It may not be necessary for doctors to have to actually recall a brand name – they need only to be able to recognize a familiar brand, which then may actually allow the doctors to activate their relevant brand knowledge from memory. So it becomes of paramount importance for a company to constantly measure the level of doctors’ brand awareness as it pertains to both products and services. To fail to do so on an ongoing basis seriously weakens any attempts to increase brand equity. Making brand global may improve the image. Developed countries may have impact on image.

**Do you perceive Indian pharmaceutical companies with sales in US & European countries as Multinational pharmaceutical companies?**

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Number of Doctors replied No</th>
<th>Percentage of Doctors replied No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors in Mumbai (N = 255)</td>
<td>151</td>
<td>59%</td>
</tr>
<tr>
<td>Doctors in Pune (N = 45)</td>
<td>29</td>
<td>65%</td>
</tr>
<tr>
<td>Overall (N = 300)</td>
<td>180</td>
<td>60%</td>
</tr>
</tbody>
</table>

**Table 26 – Results for questionnaire - question 10**

As seen from the above table, 60% of the doctors do not perceive Indian pharmaceutical companies with sales in US & European countries as Multinational pharmaceutical companies.
In Mumbai, however, around 151 of the 255 doctors who were interviewed, i.e. around 59% of them were of the opinion that they do not perceive Indian pharmaceutical companies with sales in US & European countries as Multinational pharmaceutical companies.

In Pune, around 29 of the 45 doctors who were interviewed, i.e. around 65% of them were of the opinion that they do not perceive Indian pharmaceutical companies with sales in US & European countries as Multinational pharmaceutical companies.

Thus, we see that the doctors overall say that they do not perceive Indian pharmaceutical companies with sales in US & European countries as Multinational pharmaceutical companies. The country of origin image had a positive and important impact on the elements of brand equity, i.e. brand awareness and brand strength. It is not affected by making the Indian companies global. Corporate equity do not get affected by global ness of the companies.

India has declared plans for a brand new short-term strategy aimed toward boosting pharmaceutical exports, and has additionally set guidelines for domestic drug-makers to comply with a European Union (EU) directive on imports of bulk medication into Europe.

The new initiative to encourage drug exports is being introduced attributable to government concern over their slow pace of growth in American dollar terms. It's become clear that the target set for exports of pharmaceuticals to have reached a minimum of $25 billion by March 2014 - will be tough for the industry to attain, and the strategy will be put in place to help enable the sector to attain this goal by March 2015, according to the Pharmaceutical Export Promotion Council of India.
(Pharmexcil), an agency of the Commerce and Industry Ministry. During 2012-13, India's exports of pharmaceuticals increased in local currency terms by 25% to reach 80,000 crore rupees. However, when expressed in US dollars, exports for the year amounted to £14.5 billion, representing an annual rise of 9%, which is a considerable drop from the 22% dollar-terms growth reported two years earlier, says Pharmexcil. After reviewing the sector's export performance, it’s noted that the target figure of $25 billion exports would be troublesome to attain by the projected timeline of March 2014. So as to make sure the accomplishment of the targeted $25 billion at least by March 2015 (one year later), the Ministry is eager to establish a short-term strategy plan," said the agency in a statement. (http://www.pharmatimes.com/Article/13-05-)

Medical representatives meet with pharmacists, doctors and nurses. The pharmaceutical company relies on the medical representatives to convince the medical professionals that their drugs are superior to the competition. They deliver promotional information, product pamphlets & samples - in order to convince doctors to write more prescriptions for their medications. Good patience, customer service skills and effective communication skills are required. This study also covers them

Medical representatives schedule an appointment and then meet with physicians, surgeons and other health care professionals in their hospital or office. They elucidate the product and its features. Representatives also answer any questions that the health care professional may ask. The medical representative’s role is to make his client interested in the product and to arrange a sale. (http://www.ehow.com/list_6666194_responsibilities-medical-representative.html # ixzz2hPdodRTq)
Therefore, this study involves representatives

1. Do you feel Doctors prefer to prescribe Multinational pharmaceutical company’s brands over Indian pharmaceutical company’s brands

☐ Yes  ☐ No

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Number of Medical Representatives replied Yes</th>
<th>Percentage of Medical Representatives replied yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Representatives (N = 50)</td>
<td>35</td>
<td>70%</td>
</tr>
</tbody>
</table>

Table 27: Results for MR questionnaire – question 1

As seen from the above table, 70% of the medical representatives feel that Doctors prefer to prescribe Multinational pharmaceutical company’s brands over Indian pharmaceutical company’s brands.

2. Arrange the following factor affecting a Doctors prescribing behavior in order of their importance (1 – Most important  6- Least important)

☐ Price  ☐ Quality  ☐ Visits of MR  ☐ Scientific data

☐ Other services  ☐ Any other. Pl. specify ___________________
<table>
<thead>
<tr>
<th>Factors</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of product</td>
<td>40%</td>
<td>30%</td>
<td>17%</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>Regular Visits of Medical representative</td>
<td>40%</td>
<td>25%</td>
<td>18%</td>
<td>10%</td>
<td>7%</td>
</tr>
<tr>
<td>Price</td>
<td>10%</td>
<td>39%</td>
<td>21%</td>
<td>17%</td>
<td>13%</td>
</tr>
<tr>
<td>Scientific data Provided</td>
<td>7%</td>
<td>16%</td>
<td>37%</td>
<td>14%</td>
<td>26%</td>
</tr>
<tr>
<td>Any Other</td>
<td>3%</td>
<td>29%</td>
<td>23%</td>
<td>13%</td>
<td>32%</td>
</tr>
</tbody>
</table>

**Table 28: Results for MR questionnaire – question 2**

Thus, from the above table we realize that the medical representatives feel that Quality of the drug and the regular visits of the medical representatives are two most important factors according to the medical representatives which affect a doctor’s prescription behavior.

The dramatic increase of direct-to-consumer advertising (DTCA) of prescription drugs created intensive debates on its effects on patient and doctor behavior. Combining 1994–2000 DTCA data with the 1995–2000 National Ambulatory Medical Care Surveys, we inspect the effect of DTCA on doctor visits. In harmony with the proponents’ claim, we discover that higher DTCA expenditures are associated with increased doctor visits, especially after the Food and Drug Administration clarified DTCA rules in August 1997. After 1997, every $28 increase in DTCA leads to one drug visit within 12 months. We also discover that the market-expanding effect is similar across demographic groups. This paper examined the
effect of DTCA of prescription drugs on outpatient office visits between 1995 and 2000. We found that higher DTCA expenditures are associated with increased doctor visits, and this relationship is stronger after the 1997 FDA clarification. This find is consistent with the proponents’ claim that DTCA encourages more patients to seek medical treatment. We also examined heterogeneous responses to DTCA and found the market-expanding effect is similar across demographic groups. We note, however, that because we have neither a natural identifying experiment, nor a structural model of DTCA spending and doctor visits, we cannot rule out the possibility that we have omitted some variable affecting both DTCA and doctors visits.

It is also important to note that although our results suggest that DTCA has a market-expanding effect, the welfare effects of DTCA are far reaching. For one thing, we do not model the substitution of prescription drugs against outside goods, including OTC drugs and nondrug treatment. In fact, because most increases in patient visits are driven by the visits that result in prescription drugs, we cannot exclude the possibility that DTCA induces doctors to use prescription drugs over the other alternatives. Moreover, we do not observe the price of prescription drugs as well as outside goods, which makes it difficult to discuss welfare conclusions. Therefore, our study constitutes only the first step in understanding the overall effects of DTCA. Any further studies on this issue would complement our finding and improve our understanding of the welfare effects of DTCA.

Source: http://kuafu.umd.edu/~ginger/research/jems_079.tex.pdf

The above research paper supports our findings which mention that regular visits of the medical representatives to doctors’ affects the prescription behavior of the doctors
to a great extent. This paper thus supports our findings which mention that regular visits of medical representatives do affect the prescribing behavior of the doctors.

3. **Do you feel Doctors perceive quality of Multinational pharmaceutical company’s products as better than Indian pharmaceutical company’s products**

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Number of Medical Representatives replied Yes</th>
<th>Percentage of Medical Representatives replied yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Representatives (N = 50)</td>
<td>30</td>
<td>60%</td>
</tr>
</tbody>
</table>

   **Table 29: Results for MR questionnaire – question 3**

   As seen from the above table, 60% of the medical representatives feel that Doctors perceive quality of Multinational pharmaceutical company’s products as better than Indian pharmaceutical company’s products.

4. **Do you feel Multinational pharmaceutical companies provide better scientific literature & information on their products to Doctors, than Indian pharmaceutical companies?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

   Yes  | No  |
<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Number of Medical Representatives replied Yes</th>
<th>Percentage of Medical Representatives replied yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Representatives (N = 50)</td>
<td>35</td>
<td>70%</td>
</tr>
</tbody>
</table>

**Table 30: Results for MR questionnaire – question 4**

As seen from the above table, 70% of the medical representatives feel that Multinational pharmaceutical companies provide better scientific literature & information on their products to Doctors, than Indian pharmaceutical companies.

5. **How important is price of the product, as a factor influencing Doctors prescription, especially in chronic therapy.**

[ ] Very Important  [ ] Somewhat Important  [ ] Not Important

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Number of Medical Representatives replied Very Important</th>
<th>Percentage of Medical Representatives replied Very Important</th>
<th>Number of Medical Representatives replied Somewhat Important</th>
<th>Percentage of Medical Representatives replied Somewhat Important</th>
<th>Number of Medical Representatives replied Not Important</th>
<th>Percentage of Medical Representatives replied Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Representatives (N = 50)</td>
<td>30</td>
<td>60%</td>
<td>12</td>
<td>25%</td>
<td>8</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Table 31: Results for MR questionnaire - question 5**

As seen from the above table, 60% of the medical representatives feel that price of the product, acts as a very important factor in influencing Doctors prescription, especially in chronic therapy.
6. **Is E-detailing & Digital marketing gaining more acceptance as newer forms of advertising among doctors?**

☐ Yes  ☐ No

It is at a time of great transformation in the pharmaceutical industry that e-detailing has arrived. Pharmaceutical firms are pressurized to limit spending in all spheres as the tremors of the economic uproar in 2008 are still being felt. The extensive decrease in sales force numbers was a result of this. Pharmaceutical sales directors seeking to communicate with doctors in a more proficient way, together with market access managers seeking to enhance the impact of their value-communication strategies has found a welcome solution in e-detailing in today’s world. In the pharmaceutical industry, to facilitate sales presentations to physicians, e-detailing is a ‘broad and continually evolving term that describes the use of interactive and electronic media’.

From live online product presentations, to sample ordering, to targeted emailing, and much, much more is what this term includes. Pharmaceutical companies can make certain that their products are getting the attention from doctors as they have realized that they should invest resources and time to build robust e-detailing strategies. Medical representatives previously might’ve waited for hours in a clinic’s reception, before getting the chance to present a product to a doctor. Now, by using remote marketing that does not always even require a face-to-face meeting, pharmaceutical firms can increase familiarity, establish brand awareness and facilitate sales with the help of e-detailing.
As seen from the above table, E-detailing & Digital marketing are not gaining more acceptance, as newer forms of advertising among doctors is gaining importance (thirty-six percent) as per medical representatives of MNCs’ compared to the Indian medical representatives’ opinion (twenty-eight percent). However, the pharmaceutical industry has not yet adopted e-detailing.

Prior to developing or buying e-detailing capabilities, is determining whether or not e-detailing is appropriate or not for a specific country or product is a key issue that must be considered. An industry trend abroad that is gaining popularity is the use of digitally-enabled representatives who enhance doctor-visits with cutting-edge e-detailing technologies.

7. When a doctor finds a campaign effective, does he express it to you?

    [ ] Yes  [ ] No

There are huge repercussions for the industry as a whole as the pharmaceutical marketplace is undergoing a dramatic change. Different forms of healthcare are overlapping each other’s boundaries. As clinical advances turn previously fatal diseases into chronic diseases, the primary-care sector is expanding. As more prescription products are switched to (OTC) over-the-counter status, the self-medication sector is increasing as well. Accordingly, the needs of patients are changing. Non-effective methods in influencing prescription behavior are
communicating with physicians through advertisements in journals, or through direct
mailers. ‘Somewhat non-effective’ methods rated, were the advertisements in foreign
and Indian journals. Factors that also make a physician prescribe a brand are the
quality (as perceived by the physician) and cost of the product, brand name,
reputation of the company and the first launch advantage. This is developed by
communication and promotion campaign. The increased expenditure for drug
promotion will affect the price of the prescription drugs and this in turn will have an
adverse impact on the expenses on health care. In India same molecules are sold by
different pharmaceuticals under different brand names. To cite an example: In India,
there are over a hundred and forty brands of omeprazole, (a proton pump inhibitor)
available. How is a brand selected by a doctor? What could be the factors that
influence the prescription behaviour of the doctor? What is the influence of
pharmaceutical marketing on prescription behaviour? (Narendran & Narendranathan,
2013) Hence, doctors’ feed-back on the campaign is essentials. Therefore, this is
taken-up in our current research.

Table 32: Do doctor finds a campaign effective, does he express it to you (N=65)

<table>
<thead>
<tr>
<th>When a doctor finds a campaign effective, does he express it to you</th>
<th>Indian</th>
<th>MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors communicate</td>
<td>67%</td>
<td>72%</td>
</tr>
<tr>
<td>Doctors do not say on campaign</td>
<td>33%</td>
<td>28%</td>
</tr>
</tbody>
</table>

As seen from the above table, 70% of the medical representatives feel that when a
doctor finds any campaign effective, he/she does communicate the same to the
medical representative. There is marginal difference between Indian and MNC representative’s feedback.

The market is getting very crowded in other countries, too. British general practitioners in a recent poll, reported to have received an average of five promotional mailings in a week and four visits in a month. Likewise, within a five-week time span, nine local generics companies and sixteen multinationals approached a single Malaysian doctor who was participating in a study of promotional practices in emerging countries. Doctors too reported their opinion on their campaign. At the same time, the battle for market share has triggered considerable alarm. Some 20% of US and British doctors now refuse to see any sales representatives.