

## **Chapter 3**

### **REVIEW OF THE LITERATURE**

This chapter reviews various research papers, articles and books relevant to this research. It is believed that this extensive literature review would help the researcher to understand the concepts more clearly and make the further research meaningful. The list mentioned is illustrative and not exhaustive.

#### **Scope of review**

It was an attempt to undertake research in the area of pharmaceutical branding and promotions in India and abroad. Books and Journals available at Vikram Sarabhai Library, Indian Institute of Management, Ahmedabad, Institute of Management, Nirma University, B. K. School of Business Management, Hansa Mehta Library, The M S University of Baroda etc. have been referred. Articles available from online sources such as world wide web, Ebsco, Sciencedirect, Blackwell, Emerald etc. have also been used for the review.

Indian pharmaceutical scene is fast changing. Consumer expectations are going up leading to more difficulties for pharmaceutical marketing professionals. Changes in the prescription behaviour of the doctors with socio-economic changes have also affected many pharmaceutical companies. Pharmaceutical companies who were adopting old techniques of marketing have more or less stagnated. For the first time it was surprising to note that the pharmaceutical industry is cumulatively growing by more than 5 percent.

No wonder, many pharmaceutical companies who have not changed their style of operation have started feeling the effect of cut throat competition, erosion in their ethical practice, high cost of maintaining customer both internally as well as externally leading to dent in profits (Srivastava, 2003).

The marketing chain in the pharmaceutical market than connects the manufacturers and the customer is complicated and involves various channels. So, the marketer has to promote their brands to doctors and make the stocks available at the retail outlet with the help of local wholesaler or stockist. On the receipt of prescriptions, pharmacist will honour if the brand is available in the stock. With around 20,000 pharmaceutical companies and each company has on an average five brands, that means around 1,00,000 brands. With such a stiff competition, pharmaceutical companies brand managers find it difficult and have to constantly find ways and means of marking their presence in the market place (Kumar, 2005). The pharmaceutical companies due to their short term focus in terms of which maximizes current profits might weaken or even destroy a company or brand's long-term viability (Aaker, 1991).

Brand Value can be defined as 'the worth in monetary terms of the economic, technical service and social benefits a customer receives in exchange for the price it pays for the market offering'. Brand Value creation within a relationship can be considered as having direct benefits, which influence the performance of the relationship and indirect benefits, which do not influence performance but may have importance in the future of the relationship. While the role of brands in creating value for end-customers has been well

articulated, it is only recently that the benefits of brands for channel members have been considered (Aaker, 1991).

Even though it is controversial, the criterion of brand success is market share (Hansen, Gronhaug and Warneryd, 1990). Many authors have proposed that a brand with superior relative quality should be able to achieve a higher market share and charging a premium price (Doyle, 1989). The brand leaders due to consumer demand often achieve greater support from the wholesaler and the retailer trade in terms of stock and shelf position (Hardy, 1987). The continuous tracking of consumer perceptions can provide the most effective assessment of success (Harkness, 1992). Of the different measure of consumer perceptions, the ones considered in the literature to be the most relevant criteria of brand success are: brand awareness, brand identity, brand image, personality and relationship (Doyle 1989; Pitta & Katsanis 1995; Stephens, Hill and Bergman 1996).

Many authors emphasized the importance of added values as a key characteristic of successful brands (De Chernatony and McDonald, 1994). The time spent by medical representatives in detailing a brand to doctor is also an important variable that determines the success of a brand in the market place (Gatington, et.al. 1990).

Brand success has been reasonably defined in the above literature, but there is no study conducted with specific reference to brand success in pharmaceutical products.

The literature review has been classified under following broad areas namely:

- Prescription process of General Practitioners (GPs)
- Cost of treatment in Ethical and Generic drugs
- Attributes perceived important while prescribing
- Impact of promotions on the prescription behaviour
- Impact of Generic drugs on the brand positioning of Ethical drugs
- Impact of Medical Representatives on the prescription.

### **3.1 Prescription process of GPs**

GPs considered themselves cautious and conservative prescribers. Prescribing decisions often were justified by the prescriber, despite conflicting clinical or cost arguments. A personally developed drug formulary was used to reduce dilemmas potentially associated with prescribing uncertainty. Willingness to reflect upon, and measure, prescribing habits against set professional standards varied considerably. Some GPs found it difficult to keep up to date professionally due to perceived time constraints. Excessive patient demand was considered to influence their prescribing, but GPs stated that they were not unduly influenced by the drug representative.

Prescribing makes a considerable impact on health and budgets and yet remains a contentious issue. Improved partnerships between patient, doctor and pharmacist must be established. Better prescribing decision monitoring and support through policy development and educational intervention is needed to reduce prescribing uncertainty.

Newly established Primary Care Groups may need to reflect upon the difficulties facing prescribers, particularly when prescribing within cash-limited budgets, to avoid discord between prescribing behaviour and local policy development (Carthy, et al., 2000).

General Practitioners (GPs) with high prescribing costs were significantly more likely to see drug company representatives frequently, to prescribe newly available drugs more freely, to prescribe more readily to patients who expect a prescription and significantly less likely to find useful criticism of prescribing habits by colleagues and more likely to refer medical literatures when uncertain about an aspect of drug treatment (Watkins, 2003).

Weak regulation of the pharmaceutical industry allows dubious drug marketing practices to flourish that fuel drug costs and encourage inappropriate prescribing. (Collier, 1989)

In addition to detailing, physicians are often supplied with substantial amount of free products (i.e. samples) for direct assessment of the effectiveness of a drug, which can then dispense to patients at no cost. Therefore, from the manufacturer's point of view, physicians are the customers (Gönül, et al. 2001).

Any communication with the physician- direct mail, personal selling, continuing medical education, show displays, public relations, and wellness promotions- competes for share of the physician's time and mind (Gönül, et al. 2001). Consequently, the marginal impact of cumulative detailing and samples will diminish in its effectiveness. There may be a threshold level of detailing and samples beyond which the effect becomes negative (Van

Zandt, 1993). Physicians may show disinterest due to excessive detailing and samples and consequently unwilling to prescribe the drug.

### **3.2 Key influences upon prescribing**

Many factors have been identified which have an important relationship with GP prescribing rates and costs. There are those fixed factors for which there is no potential for modification by a change in doctor's behaviour—for example, age and sex of GP (Howie, 1976 and Hartley, et al. 1998), age and sex of the practice population (Carrin, 1987 and Healey, et al. 1994), socioeconomic deprivation of the practice area (Forster, et al. 1991 and Baker, et al. 1991), and fund holding status (Morton, et al. 1993) in the recent past. There are also factors where it is plausible that a change in doctor's behaviour or practice organization will result in modification of prescribing rates and costs. These include knowledge of drugs and drug costs and sources of information (Forster, 1991, Coleman, et al. 2000 and Ryan, et al. 1990), level of postgraduate medical education (Becker, et al. 1972), social and logistic factors such as role perception of GPs and time pressures (Carrin, 1987, Bradley, 1992 and Harris, et al. 1984), number of GPs in the practice (Carrin, 1987), and attitudes to generic and branded products (Carrin, 1987 and Zwanenberg, et al. 1987). A number of measures have been adopted in recent years through legislation, local and national policy decision making, and medical audit, in an effort to reduce ineffective or costly prescribing and improve patient care. These “managerial” interventions—in which behavioural change is encouraged by changes in the regulatory, financial, and organizational environment—constitute a “top down” approach which can evoke resistance from some doctors who fear a loss of clinical

freedom and risk to the doctor-patient relationship. It has been found that GPs in high cost prescribing practices were significantly less in favour of substitution with comparable but generic drugs (Audit Commission, 1996 and Avery, et al. 2000).

Factors such as the close relationship between drug representatives and some GPs, the patient-doctor relationship, the pressure on consultation time, and the relationship between GPs and their partners and other colleagues may be more difficult to tackle. The high degree of clustering of many of these factors, and the fact that many of them are determined at practice level rather than by individual GPs, suggests that such an intervention should not simply be targeted at individual prescribers but will need to engage multiple partners within each practice to maximise the likely benefit (Watkins et.al, 2003).

In one of the exploratory study, it was proposed that prescribers are characterized by fairly limited price sensitivity. Detailing and samples have a mostly informative effect on the prescribers (Gönül, et al. 2001).

In the changing health care environment, Managed Care Organizations (MCOs) are playing an important role of encouraging physicians to be more cost conscious and gradually replace more drastic treatment options, such as surgery, with preventive medicinal treatment whenever possible.

Drawing a natural parallel between detailing drugs and advertising consumer goods, it can be argued that detailing, similar to advertising, is both a marketing tool and an information source for prescribers (Nelson, 1974).

The marketing strategies employed in the pharmaceutical industry sharply contrast with those typically adopted in other markets. One of the primary reasons for the difference is that in the prescription drug market there is a distinct approach in buying decision process. The decision maker is the physician, who chooses among an array of drug alternatives, but it is the patient who consumes the drug and ends up paying for the choices made by the physician. Therefore, it is conceptually harder to define the customer in such transactions.

### **3.3 Prescribing uncertainty and knowledge of GP**

Prescribers often use a personal 'head-held' drug formulary; a unique individual index to decide whether and what to prescribe. The formulary was established during medical training and shaped by other medical practitioners, patents, policy and own experience in general practice.

Prescribing doubts usually were associated with adverse drug effects: whether the decision to prescribe a particular drug had a potentially detrimental effect; uncertain or ill-defined diagnoses; or treatments for children or the elderly. Some medical practitioners described difficulties experienced during patient Variation and costs of GP prescribing consultations, when they were required to access relevant drug information.



Prescribers believe that the major factors contributing to the perceived prescribing uncertainty or lack of knowledge was a combination of factors; accessing information, but with insufficient time in which to keep professionally up-to-date; due to increasing workload; the changing culture of general practice; with patients apparently more aware of health issues and generally more questioning and challenging.

Providing doctors with knowledge on how to treat diseases in accordance with research evidence and guideline recommendations seldom changes the way doctors prescribe drugs. (Lagerlöv, 2000)

### **3.4 Peer influences**

The hospital medical consultant was viewed as a valuable source of advice and support. This was especially true in the use of new drugs, as direct result of secondary care patient treatment provides valuable support for enhancing prescribing knowledge (Carthy, et.al., 2000).

Use of new drugs was considered to be cautious and conservative but could be influenced by failure of tried and tested therapies. Specific reports or articles in professional journals could also trigger use of new drugs. Few prescribers met with colleagues to compare their prescribing. Reluctance to compare prescribing was due to either confidence in prescribing ability or fear of criticism.

### **3.5 Influences of the patient**

Excessive and unrealistic demands from the patient are the frequently phenomenon due to media-prompted news which ultimately provokes huge responses from patients (Carthy, et.al., 2000).

Physicians may be viewed more favourably by their patients if they demonstrate additional responsiveness and empathy by considering the patients' financial situation and the specifics of their health insurance plan when choosing among drugs of similar efficacy for a patient's medical condition (Gönül, et al. 2001).

### **3.6 Prescribing costs**

General practitioners (GPs) appeared to support cost reducing initiatives in principle, although some unease was acknowledged. Prescribing habits, today, tend to be more modern prescribing rather than old fashioned prescribing habits for cheap drugs (Carthy, et.al. 2000). Apart from routine reviews of chronic conditions, prescribers rarely, if ever, monitored prescribing decisions.

Switching physicians on the basis of an unsatisfactory experience related to drug costs is unlikely, but still the potential loss of patients' patronage could be a reasonable concern to physicians (Gönül, et al. 2001).

Accommodating patients' price sensitivity while accounting for their medical conditions, along with giving free samples to some patients, may be considered as a tangible

indication of care and involvement that can further enhance the relationship between the physician and patient (Gönül, et al. 2001).

A common belief in the theoretical literature is that physicians are not price sensitive when selecting which drugs to prescribe, because they act as the patients' agents and the cost savings accrue to the patient, not to the prescriber (Leffler, 1981). In the changing scenario of health care industry, prices may be expected to influence the choice of drugs prescribed by physicians (Gönül, et al. 2001). Therefore, physicians often try to accommodate their patients' price sensitivity, even though they do not directly bear the cost of the drug. On the contrary, many researchers argued that considering the importance of prescribing the right drug that would lead to efficacious treatment with few side effects or complications given a patients' condition, physicians might choose not to prioritize relatively the price sensitivity of the patient if they believe that price is an indicator of quality and the patients' condition warrants a higher efficacy treatment.

This is further supported by researches in marketing, which proposes that both price and promotions can be perceived as signals of quality (Milgrom and Roberts 1982, 1986; Nelson 1974). Physicians are regarded as customers in a situation of incomplete information i.e. in which the uncertainty comes from the unknown efficacy of the detailed drug for a patient's treatment, then it is expected that physicians might consider the higher price as a credible signal of quality.

There are sufficient past researches on physicians that propose about the situations when the main ingredients are known to be the same in competitive brands of drugs. Physicians

keep prescribing the same drug for refills if the drug has been reported as working well to the patient treatment and believe that there is no reason to deviate from it in subsequent prescriptions because of the risks associated with switching treatment. Therefore, in these situations price would become less of a concern (Gönül, et al. 2001).

### **3.7 Influences of the pharmaceutical industry**

Most GPs felt that advice from drug representatives was selective or contained “half truths”. Some technical data was valued, but GPs placed restrictions on access, or number and duration of visits (Carthy, et.al., 2000).

Most GPs appreciated that marketing techniques could influence their prescribing but generally expressed confidence in their ability to withstand commercial sales pressure. Prescribing decisions make a considerable impact on health and national budgets and require complex personal and professional judgements to be made about physical, psychosocial and cost dimensions of health. Professional experience, and the use of the personal formulary, may provide a suitable basis for change models. Time must be set aside for GPs to reflect upon their prescribing and compare it with clearly defined quality outcome indicators.

Without support and monitoring, and encouragement to forge better decision partnerships between doctor and patient, and doctor and pharmacist, some prescribing will, inevitably, remain suboptimal.

### **3.8 Cost of treatment in Ethical and Generic drugs**

Innovation and patenting play a central role in the supply of drugs. Price-cost margins for pharmaceutical manufacturers are high on average. Demand side characteristics such as intermediation by physicians, insurance coverage and low price elasticities interact with the presence of monopoly power on the supply side, due to patenting and brand loyalty, to support prices that commonly exceed drug production costs by a substantial margin. A justification of high cost of treatment in ethical drugs compared to generic drugs is generally believed to be the large risks associated with pharmaceutical R&D. An often cited number is that on average \$500 million of R&D outlays are needed before one successful new drug can be marketed (Windmeijer et.al, 2004).

Many generic drugs do not capture the lead in the pharmaceutical industry because of the strong and positive price-quality signaling effects (Gönül, et al. 2001).

### **3.9 Attributes perceived important while prescribing**

The importance of patients' involvement in health care is now being recognised by the medical profession. For patients to be involved their priorities must be identified and addressed. Most of the research about patients' preferences and expectations has been carried out at the population level using methods such as questionnaire surveys and focus groups. A consistent finding over the years has been patients' preferences for doctors who listen and encourage them to discuss all their problems. As patients' expectations are

often context specific what is needed is research within the consultation to determine whether or not patients' preferences are being articulated and listened to (Britten, 2000).

Physicians, being intermediaries in the buying decision process of prescription drugs (a position reflecting their key role between the drug manufacturer and the patient who is the ultimate consumer), are often placed in a situation of uncertainty as to which drug is the best for each particular patient's case. Considering the broad substitutability among many drugs on the market, the prescription choice decision, often critical, is increasingly harder to make (Gönül, et al. 2001). Physicians might regard a higher price as a signal of quality and price premium justified by the higher efficacy of the drug. Therefore, prescribe the more expensive drug when drug efficacy is of prime consideration.

### **3.10 Impact of promotions on the prescription behaviour**

Pharmaceutical companies spend large sums of money on the promotion of their products. In an absolute sense this is not surprising, since the pharmaceutical sector is very large: in 1996, 1.2% of GDP in industrialized countries was spent on pharmaceuticals. But pharmaceutical promotion outlays are large in a relative sense as well. In the entire economy, firms spend an average of 2% of their revenues on promotion. For pharmaceutical firms this percentage is much higher; estimates imply that around 15% to 25% of their revenues are spent on promotion (Windmeijer et.al., 2004).

In many countries insurance or tax systems are in place such that the consumer of pharmaceutical products does not bear the full direct costs of pharmaceutical

consumption. As physicians are the main decision-makers, most of pharmaceutical companies' promotion activities are directed to general practitioners and specialists. As large promotion outlays in a market with inelastic demand will lead to higher prices, it is important to assess the welfare aspects of pharmaceutical companies' marketing activities.

Promotion can have two effects on demand: it may shift the demand curve outwards as doctors prescribe more of the advertised drug and it may rotate the demand curve as demand becomes less or more price-elastic than before. In general, if product promotion lowers the price sensitivity, this will inhibit price competition and will lead to higher prices, thus harming social welfare. An outward shift of the demand curve for a drug could be socially desirable if this drug truly improves health at a reasonable cost. However, if promotion is merely a means of establishing market share, even when cheaper, therapeutically equivalent drugs are available, the promotion efforts may be socially harmful.

Pharmaceutical companies use many instruments to influence the prescribing decisions made by general practitioners. Of these, detailing (where a representative of the company pays a visit to the GP) is the most important way of communicating with and informing GPs about a drug's performance. Other promotion activities aimed at GPs are advertising in medical journals, direct mail, so-called post marketing research (PMR) programs and continuing medical education (CME) events.

According to a study conducted by the Forum for Medical Ethics in collaboration with the Drug Controller General of India and the World Health Organisation (WHO), on the 'Promotional Practices of Pharmaceutical Firms in India', doctors are routinely influenced by gifts ranging from mobile phones to sponsored weddings. (Shabnam, 2003)

In many healthcare studies, detailing is found to be a critical component of promotions where personal selling is often applied to influence prescription behaviour. Detailing is a valuable, though not unique or entirely accurate, source of information for physicians, providing them with useful knowledge about the drug toxicity, efficacy and the cost to the patient. Detailing may enable physicians to make careful trade-offs between costs and benefits for each patient, thus offering a more customized service and enhanced social welfare (Berndt, et al. 1994).

### **3.11 Impact of Generic drugs on the brand positioning of Ethical drugs**

Generic prescription drugs have become the focal point of intense interest to consumer groups, governmental agencies, employers, health care professionals, and the pharmaceutical supplier industry (David, 1985).

Generic Marketing in India is an old method of marketing wherein retailers with hefty margin pushes the products at the cost of customers and marketing professionals. Focus customers are retailers whose main concern is the margin. Margin fluctuates on fortnightly basis depending upon the availability of players and demand. These activities are purely a purchase function and are not related to marketing (Gönül, et al. 2001).



Earlier this market was dominated by small players and fly by night operators who use to dump the goods regardless of quality. Chemists use to make huge profits at the cost of consumer. Many times spurious goods or substandard products are sold to unaware or uneducated customers. This market got shot in the arm after major companies like Ranbaxy, CIPLA, Cadila, Lupin etc entered into these segments. The entire marketing potentials grew by leaps and bound in segments where prescriptions are not honoured but substituted.

However, the market has gone up from Rs3 billion to Rs9 billion within a span of 3 years. This led to many companies to enter into generic market, which shifted the customer focus to Retailer from Doctors. This change led to minimum number of "order taking Medical Representatives" to push such generic products (Gönül, et al. 2001).

Generic marketing has led to a parallel market which has eroded the prescription market and set in the concept of trading mentality with down grading of ethical marketing, customer values and country existing Law system.

### **3.12 Impact of Medical Representatives on the prescription**

Medical Representative is an important link in pharmaceutical industry. During the last five years, the image of the medical representative is going down. Medical representatives are no longer considered to be knowledgeable and effective communicator. Many times the medical representatives undergo a very rough treatment from doctors. There is a very common practice to see a medical representative standing in a queue and detailing to one or two doctors in hospitals or carrying bag containing gifts

and distributing the same or escorting doctors for a holiday trip. The role of medical representative basically is to give medical information to the doctors so that they can keep themselves abreast with the latest happenings and help them to improve their practice.

Due to de-emphasizing on training, untrained medical representatives are lowering the image of company and today the situation is such that doctors see them only when they are free. The image, which medical representatives had earlier, has gone down. They are treated like just another salesman. Pharmaceutical company should think on this relevant point so that it not only helps medical representative to get better business but also improves company's image.

Consultative detailing can be an ideal communication process in improving the image of the medical representative as well as company. It positions them as a consultant to the diseased management.

Dispensing samples in the health care industry is different from that in nonpharmaceutical markets, because drug samples are often accompanied by detailing and accepting them might imply some commitment to prescribe the drug in the future prescriptions (Marks, et al. 1988). Samples can be the only visible reminder of the drug after the sales representative has left the physician's office. Thus, samples can have a more lasting influence on the physician because they add tangibility to the sales representative's efforts.

A study of drug sample allocation strategy proposed that, Medical Representatives should strive to consistently tie sampling to physicians' potential to initiate new prescriptions, such that the sampling rate is fairly constant across segments. They further proposed that, high potential physicians typically receive more samples, and details than low potential physicians (Stinebaugh, et al. 2003). Medical Representatives (MRs) are the most common method for distributing samples to target doctors, but other approaches are slowly becoming popular as pharmaceutical companies are now started using a combination of direct mail, internet and vouchers. Some physicians prefer vouchers because they acquire less paper and space, while others strongly prefer drug samples over vouchers. Smaller companies are turning to these new channels to achieve wider geographical reach than their sales force can provide while larger companies are experimenting to get an access to "no-see" physicians.

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