Chapter 2
Review of Literature

2.1. INTRODUCTION
The research begins a review of existing literature about the scope of pharmaceutical market boundaries, segmentation, targeting, and positioning approach, and marketing mix variables. Accordingly, general concepts of strategy used in the pharmaceutical marketing business are described in the Chapter.

The Chapter consists of four sections:

1. Discussion of the definition of pharmaceutical market.
3. A review of marketing strategy dimensions.
4. Summary and research gap.

The purpose of reviewing literatures is to present a summary of relevant literature upon which the objectives of the study are based.

2.2. THE DEFINITION OF THE PHARMACEUTICAL MARKET
Currently, it is recognized that market definition is a basic foundation for the design and modification of marketing strategies, the analysis of competition and the evaluation of performance (Buzzell R. D., 1999)\textsuperscript{24}. The study begins with Oxford English Dictionary definition of market. The term" market" is defined as a specific place at which exchanges were made (Oxford English Dictionary, 1971)\textsuperscript{25}. A market is simply a group of people who share a similar need. Historically, markets are places where buyers and sellers met. From business perceptive, most business people use the term to refer to different ways of grouping customers in a marketplace.

Whatever its geographic scope, defining a market requires the specification of which products and services are to be included. Day, Shocker, and Srivastava define a product market as follows:

“The set of products judged to be substitutes within those usage segments in which similar patterns of benefits are sought and the customers for whom such usage are relevant” (Day, Shocker, & Shrivastava, 1979)\textsuperscript{26}. This implies that a product market is a group of physical products perceived to be substitutes by a group of customers for specific occasions. However, some literatures define the boundaries of their market from demand side, supply side and socio-cognitive perspectives. An example of demand-side perspective to identify the market boundaries is customer choice set and cross-elasticity demand (Day, Shocker, & Shrivastava, 1979)\textsuperscript{27}; (Ratneshwar & Shocker, 1991)\textsuperscript{28}. Porter indicates that market boundaries are determined by external environment and customer needs from the strategic group approaches (Porter, 1980)\textsuperscript{29}.

In the socio-cognitive perspectives, product markets are defined as constructed knowledge structures that shared among producers and consumers (Rosa, Porac, & Saxon, 1999)\textsuperscript{30}. Therefore, knowledge sharing enables consumers and producers to interact in the market, so product markets become coherent as a result of consumers and producers make sense of each other's behaviours.

The two important key characteristics of pharmaceutical markets need to be considered when approaching market definition.

First, the price of patented (and innovative) drugs tends to be regulated. This is because in many national markets pharmaceutical firms face the Government as a single monopsony buyer. This regulation means that firms cannot freely set prices, and in particular cannot increase prices over time even if it is otherwise profitable to do so. On the other hand, firms are usually free to decrease prices when facing stronger competition.

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Second, these markets are characterised by an unusual structure whereby the ultimate consumer (patient) differs from the decision maker (doctor) and very often from the payer (national insurance service or private health insurance). Because of this peculiar structure, there is usually very limited price sensitivity on the part of the decision makers. These characteristics combine to create a market environment in which pharmaceutical companies compete.

2.3. SEGMENTATION, TARGETING AND POSITIONING PROCESS

Market segmentation is the process by which a market is divided into distinct subsets of customers with similar needs and characteristics that lead them to respond in similar ways to a particular product offering and marketing program (Walker, Mullins, Boyd, & Lerreche, 2009)\(^\text{31}\).

Target marketing requires evaluating the relative attractiveness of various segments (in terms of market potential, growth rate, competitive intensity, and other factors and the firm’s mission and capabilities to deliver what each segment want, in order to choose which segments it will serve. Product positioning entails designing product offerings and marketing programs that collectively establish an enduring competitive advantage in the target market by creating a unique image, or, position in the customer’s mind (Walker, Mullins, Boyd, & Lerreche, 2009).

These three decision process i.e. market segmentation, target marketing, and positioning are closely linked and have strong interdependence. All must be well considered and implemented if the firm wants to be successful in managing a given product-market relationship. No matter how large the firm is, however, its resources are usually limited compared with the number of alternative market segments available for investment. Thus a firm makes choices. Even in the unusual case where a firm can afford to serve all market segments, it must determine the most appropriate allocation of its marketing effort across segments.

But are all these analyses and conscious about which segments to serve really necessary? To find answer of the above question an extensive review of literature has been done.

### 2.3.1. MARKET SEGMENTATION

Segmentation is a view that not all customers are the same. Thus markets consist of a number of ‘segments’, each segment consisting of ‘homogeneous’ customers. Market segmentation is a tool of choice for identifying target customer groups and developing the best possible offerings to market to these target groups. McDonald defined a market segment as ‘a group of customers or consumers who share the same or similar needs’ (McDonald, 1999)\(^\text{32}\). McDonald and Dunbar defined segmentation as a process of splitting customers or potential customers, within a market into different groups or segments, within which customers have the same or similar requirements satisfied by a distinct marketing mix (McDonald & Dunbar, 1988)\(^\text{33}\).

Segmentation is a rational and more precise approach to adjust the product message to the requirements of the target market (Smith W., 1956)\(^\text{34}\). Awareness should also be made of the benefits of segmentation in terms of the immediate positive impact on a product campaign (Kuenne & Choi, 2000)\(^\text{35}\).

### 2.3.2. APPROACHES FOR SEGMENTATION

Market segmentation helps companies to divide large, heterogeneous markets into smaller segments that can be reached more efficiently and effectively with products and services that match their unique needs. The homogeneity within a segment means that members of segment have similar needs and habits. Goodwin & Gentry (2000)\(^\text{36}\) proposed that Lifestyle is an important basis of market

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\(^{34}\) Smith W, Product differentiation and market segmentation as alternative marketing strategies, *Journal of Marketing*, Vol 21, No. 5 (July 1956)


segmentation. The study argues that people undergoing life transitions share unique patterns of consumer behavior as well as common responses to marketing appeals. The segmentation model requires the selection of basis for segmentation. Segmentation of Prescribers classifies prescribers into different groups which enables the pharmaceutical marketers to understand the markets from prescriber's viewpoint. For marketing managers a clear reading of prescriber's needs, behavior, perceptions and prescribing processes is required to formulate desired marketing strategies (Mittal & Singh, 2010). The major segmentation bases for prescribers are briefly discussed below (Kotler & Keller, 2006).

2.3.2.1. GEOGRAPHIC SEGMENTATION
Geographic segmentation as the name implies, entails subdividing the market into regions, cities, districts and villages. The assumption in using this basis for segmentation implies that prescribers in a particular geographic area have identical preferences and prescribing patterns.

2.3.2.2. DEMOGRAPHIC SEGMENTATION:
This is one of most commonly used segmentation technique used to classify prescribers. It divides the prescribers into groups based on variables such as length of practice, age, gender, specialization of physicians, sex and number of patients per day doctor treats. Income level of patient also plays an important role. If the paying capacity of patients is limited, he naturally prefers to go to a doctor whose fees are low and who prescribe cheaper drugs.

2.3.2.3. PSYCHOGRAPHIC SEGMENTATION
Psychographic segmentation is based on dividing the prescribers according to life style and personality characteristics. People in the same demographic group can have different psychographic make ups. Nine types of doctors can be distinguished on the basis of such criteria. These are experimentalists, progressive, hospital doctors/ teaching staff, over stretched, self satisfied type, self absorbed, entrepreneurist, problem solver, believer, counselor, social worker.

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philanthropic type, commercial type, the undecided and the disillusioned (Mittal & Singh, 2010).

2.3.2.4. BEHAVIOURAL SEGMENTATION
Dividing the market on the basis of variables such as occasion, benefit sought user status, usage rate, loyalty status, buyer readiness stage and attitude is termed as behavioural segmentation.

2.3.2.5. BENEFIT SEGMENTATION
By purchasing and using products, consumers are trying to satisfy specific needs and wants. In essence, they look for products that provide specific benefits to them. Identifying consumer groups looking for special benefits from the use of a product or service is known as benefit segmentation.

2.3.2.6. MULTIPLE SEGMENTATION
The marketers often combine together various characteristics because it reveals very important information about target market.

Some researchers feel that highly standardized segmentation procedures are premature and undesirable (Yoram, 1978) 39. Problems encountered with prevailing segmentation approach include; incomplete set of variables, a clustering approach that does not highlight useful differences across a common set of variables and difficulties with the identification of target segments (Kuenne & Choi, 2000)40.

A wide range of segmentation methodologies exists, but in the current marketing environment, there is growing interest in complex, multi axial approach to segmentation, especially when these include more subjective indicators such as attitude and life stage (Forsyth, Gupta, & Haldar, 1999)41.

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39 Wind Y, Issues and advances in segmentation research, Journal of Marketing Research, XV (August 1978)
40 Kuenne C and Choi L, Segment based marketing: From dream to reality, Pharmaceutical Executive, pp 54-68 (Oct 2000)
The consumer industry has always had customer needs at the top of its agenda, because its products are specifically tailored to meet customer needs. Thus a manufacturer of apparels having conducted market research to identify a segment of customers with a distinct set of needs might decide to produce new clothing. Once this decision is made, it is quite possible to design, manufacture and distribute the product within a few short months.

But this is not possible in pharmaceutical industry because there are clear differences that apply to pharmaceutical drug development, mainly to do with rules, regulations and restrictions (Greengrove, 2002)\textsuperscript{42}. Some of them are as follows:

- Extensive trial process (from pre-clinical development, through applications for use of drugs in human subjects, through all the clinical phases).
- Applications for marketing.
- Negotiations on trade names, pricing and reimbursement.

All this means that it can take 12–15 years from identification of a new chemical entity in the hands of a scientist to launch of product in the marketplace.

Mittal & Singh (2010)\textsuperscript{43} analyzed that the dependence of pharma companies on single segment is not sufficient for segmenting the prescriber’s base. Due to existence of high competition the companies need to concentrate on almost each and every variable. They are required to segment the prescriber’s base by adopting psychographic and behavioural approach in addition to demographic and geographic approach. Threy suggested that the companies must go for integrated segmentation approach according to which the data first of all could be segmented on geographical basis based on priori segmentation technique followed by clustering analysis using demographic, psychographic and geographical variables.


In pharmaceutical industry, marketing lies and moves around the print promotion and efforts made by the sales force, to move the product to ultimate consumers. Generally, while segmenting the prescriber’s base, strategy of market segmentation is not adopted. The managers and representatives try to fit the market to the product and not product to the market. The same product is promoted to number of heterogeneous prescribers by adopting similar approach. The Integrated segmentation approach analyzes individual prescribing behaviours, demographics, and psychographics (attitudes, beliefs, and values) of prescribers. For a particular product, for example, one segment might consist of price sensitive physicians, another might include doctors loyal to a given manufacturer's brand, and a third may include those unfriendly toward reps. The Pharma executives can develop marketing and sales approaches for each segment (Mittal & Singh, 2010).

The pharmaceutical marketplace is currently facing much change with a variety of external and internal pressures. The impact of these pressures can affect product development adversely in one of two ways: either candidates fail to reach the market or potential value is not realized. These external and internal pressures are listed in the following table 2.1:

Table 2.1: Pharmaceutical industry pressures in the new millennium

<table>
<thead>
<tr>
<th>External</th>
<th>Internal</th>
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</thead>
<tbody>
<tr>
<td>Global consolidation and integration</td>
<td>Lack of critical mass</td>
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<tr>
<td>Portfolio rationalization</td>
<td>Need to shorten time to market and peak sales</td>
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<tr>
<td>Increasing competition</td>
<td>Reduced level of marketing and clinical expertise</td>
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<tr>
<td>Technological change</td>
<td>Sub-optimal marketing/medical interface</td>
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<td>Government drives to reduce healthcare drug costs</td>
<td>Cutbacks in R&amp;D spend</td>
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<tr>
<td>Formulary restriction</td>
<td>Data saturation – poor definition and leverage of critical strategic information</td>
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<tr>
<td>Need to demonstrate therapeutic value in specific patient populations</td>
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Source: Pharmaceutical Executive (2000)
Lerer (2002)\textsuperscript{44} supported that due to these pressures the pharmaceutical companies are trying to extract maximum value from sales and marketing investments. The financial markets are asking whether companies have the resources, strategic orientation and skills to sell products aggressively. Focusing on customers (especially physicians) and extracting maximum value from these customers is becoming a vital concern for most pharmaceutical companies in consideration of government, insurer and payer cost containment pressures, recent high profile drug withdrawals, the failures to obtain regulatory approvals and the constant criticism of the industry on many fronts.

MacLennan & MacKenzie (2000)\textsuperscript{45} concluded that few companies (large or small) use market segmentation to its maximum potential although top executives in the pharmaceutical industry often advocate being market oriented and customer focused. Against the backdrop of an ever more demanding marketplace and many advances in strategic marketing planning technology, a majority of pharmaceutical companies still base their product development and commercialization plans on cursory, incomplete, or intuitive marketing analysis, missing fundamental opportunities and delivering incomplete or inappropriate strategies. Such a lack of rigour may be explained by a number of factors such as need to reduce time to market, reducing levels of expertise in marketing, a less than optimal medical marketing interface, and the poor or ineffective leverage of information.

The first step towards being closer to the market is to develop a deeper understanding of customers, and market segmentation is the best route to attaining and leveraging this market understanding (Cjorstens, 1991)\textsuperscript{46}. If used effectively, market segmentation can provide a point of consensus for all stakeholders and a more strong foundation for creating advantages that will lead to increasing sales.

\textsuperscript{46} Cjorstens, M, Marketing strategy in the pharmaceutical industry, London & New York: Chapman and Hall (1991)
and improving overall marketing performance (MacLennan & MacKenzie, 2000).  

Understanding customers is more important than ever in today's competitive economy, where declining customer loyalty and high customer turnover continue to erode profit margins. Without accurate, verifiable segmentation of customers with respect to value, strategic decision makers cannot get the information they need to evaluate and execute strategies for improving customer profitability and the efficiency of marketing campaigns (Mittal & Singh, 2010).

The internet is a channel for rapid interaction, requiring new approaches to customer response and real time analytics. For market segmentation, the internet is laboratory, where predictive approaches and various offerings can be tested through observing, interactions with websites, customer feedback and sales (Lerer, 2002).

As most conventional segmentation relies on post hoc analysis of extensive surveys, it is often difficult to predict future behaviours, especially in a rapidly changing market environment (Haley R., 1968). As pharmaceutical companies increasingly use tools such as e-detailing and CRM, segmentation methodologies will have to become more rapid and deliver a more individualized view of the market (Lerer, 2002).

Smith, D. B. studied the superior marketing in pharmaceutical companies. He found that traditional segmentation methodology becomes obsolete because fundamental changes now driving the industry, from market access to the web-enabled patient, are making pharma markets more heterogeneous. He elaborated that traditionally, most pharma marketers have tried to manage the heterogeneity of the market in two ways; patient segmentation or prescriber segmentation. In

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recent years, a third approach to the segmentation of pharma markets has begun to evolve, based on differences between payers.

2.3.3. TARGET MARKETING

The role of targeted marketing is the deployment of differentiated messages, strategies and tactics for each audience segment. Targeting in pharmaceutical industry helps a marketer in answering questions like:

- When should the customer be contacted?
- In which channel?
- Does one plan work for all segments?
- What is the segment’s “health literacy”? 
- How frequent is engagement?

Targeted marketing helps deploy the full range of communication vehicles effectively. Targeted marketing also enables to tailor communications at each stage of the marketing plan (Bowes, 2010)\(^51\).

Kotler & Keller (2006)\(^{52}\) identified the following targeting strategies:

2.3.3.1. UNDIFFERENTIATED MARKETING

Using an undifferentiated marketing (or mass-marketing) strategy, a firm might decide to ignore market segment differences and target the whole market with one offer. This mass marketing strategy focuses on what is common in the needs of consumers rather than on what is different. The company designs a product and a marketing program that will appeal to the largest number of buyers. Difficulties arise in developing a product or brand that will satisfy all consumers. Moreover, mass marketers often have trouble competing with more-focused firms that do a better job of satisfying the needs of specific segments and niches.

2.3.3.2. DIFFERENTIATED MARKETING

Using a differentiated marketing (or segmented marketing) strategy, a firm decides to target several market segments and designs separate offers for each. By offering product and marketing variations to segments, companies hope for higher

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sales and a stronger position within each market segment. Developing a stronger position within several segments creates more total sales than undifferentiated marketing across all segments. But differentiated marketing also increases the costs of doing business. Developing separate marketing plans for the separate segments requires extra marketing research, forecasting, sales analysis, promotion planning, and channel management and trying to reach different market segments with different advertising increases promotion costs. Thus, the company must weigh increased sales against increased costs when deciding on a differentiated marketing strategy.

2.3.3.3. CONCENTRATED MARKETING

A third market-coverage strategy, concentrated marketing (or niche marketing), is especially appealing when company resources are limited. Instead of going after a small share of a large market, the firm goes after a large share of one or a few smaller segments or niches. Through concentrated marketing, the firm achieves a strong market position because of its greater knowledge of consumer needs in the niches it serves and the special reputation it acquires. It can market more effectively by fine-tuning its products, prices, and programs to the needs of carefully defined segments. It can also market more efficiently, targeting its products or services, channels, and communications programs toward only consumers that it can serve best and most profitably. Whereas segments are fairly large and normally attract several competitors, niches are smaller and may attract only one or a few competitors. Niching offers smaller companies an opportunity to compete by focusing their limited resources on serving niches that may be unimportant to or overlooked by larger competitors.

Purcarea, Ratiu, Purcarea, & Popa (2009) found that to target the various customer types many pharmaceutical companies have deployed different strategies. The pharmaceutical industry have complex web of decision makers determining the nature of the transaction/prescription for which direct

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customer/doctor of this industry is responsible, while the end-user/patient consumes a product and pays the cost. For marketing products to physicians and to exert some influence over others in the hierarchy of decision makers medical representatives are used.

Behaviorally targeted online advertising spending is increasing, but the future remains unclear. Although, it is predicted to grow by more than 20% over the next three years (eMarketer, January 2010), privacy issues are alarming. This is a particularly problematic issue for the pharmaceutical industry, given stronger restrictions around consumer health information. This creates demand for alternative targeting strategies that comply with regulations. Because of these internal and external limitations on the use of digital media, pharma advertisers need to think outside the box, weighing different options that go beyond the traditional heavy reliance on endemic, i.e., health-related content.

In its research, (Contextweb, 2011) has found that targeting ad placements to a variety of content pages can be effective at a much lower cost; 70% more effective than the average CTR for pharma campaigns, and 24% more efficient.

Stephen (2007) emphasized that pharmaceutical companies have to adopt call value targeting, which looks at each doctor as an individual market and each potential sales call as a unique investment opportunity with a definable value. It seeks to overcome the flawed assumption in market segmentation that all doctors chosen in a segment carry same weightage.

Padhy & Patnaik, (2002) also studied the call value targeting issues in pharmaceutical industry. He found that doctors are usually targeted by pharma companies based on their rate of past prescriptions. Past prescribing habit serves

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as a good predictor of total prescriptions written by a doctor, and could indicate how many scripts a doctor will write in future, in response to detailing and sampling. They suggested that call value targeting can be conveniently used by the pharmaceutical sales representatives to target their market segments, as there are no judgment calls about which doctor to see next outside the call plan list. It could also be suggested that most companies could enhance their business by adopting this method of marketing after a thorough market research on potential customers and their real time output.

2.3.4. POSITIONING

Beyond deciding which segments of the market to be targeted, the marketer decides on a value proposition i.e. how it will create differentiated value for targeted segments and what positions it wants to occupy in those segments. A product’s position is the way the product is defined by consumers on important attributes; the place the product occupies in consumers’ minds relative to competing products. A product’s position is the complex set of perceptions, impressions, and feelings that consumers have for the product compared with competing products (Kotler & Keller, 2006)58.

For most pharmaceutical marketers, it is easiest to recount facts about efficacy, side effects, and dosage. But blending facts and feelings is one of the most challenging, creative, and rewarding aspects of product positioning. With Pharmaceuticals, feelings are not typically the primary driver of a product's positioning. In this highly regulated industry, facts form the backbone of a product's story. But feelings often interpret and contextualize facts, and help shape a story for physicians, patients, and other stakeholders.

With each passing year, pharmaceutical product positioning begins earlier in the development cycle, continues longer, and responds to more market variables than ever before. From the views of key opinion leaders (KOLs) in the early development stage, to the ad campaigns that mark an expired patent's over-the-

counter debut, products must fit tightly defined niches in complex markets. Strategies in each new phase in the positioning process depend on factors like cost, similar drugs in a manufacturer's portfolio, and the self-image of patients, among others.

But for everything new in product positioning, some elements remain as important now as they were decades ago. Then and now, positioning has more to do with consumers' attitudes toward a product than with the product itself (Vanderveer, 2005)\textsuperscript{59}.

The basic ideas of product positioning were developed more than 30 years ago by marketing consultants Al Ries and Jack Trout. Regarded as pioneers today, they coined the modern notion of marketing "warfare" and, in the 1970s, began thinking about product positioning as "the battle for your mind." How target customers think and feel about a product will determine their behavior i.e. what they buy and consume, and ultimately the kind of market share the brand wins (Ries & Trout, 2000)\textsuperscript{60}.

Because positioning drives strategy and helps determine what communications materials are created, it is central to the success of the brand. Positioning couples the understanding of the marketplace (including customers and customer segments) with the appreciation of the product and guides the development of the marketing message.

Historically, the positioning of a pharmaceutical product was a fairly simple one-shot deal. Approximately 12 to 18 months before the introduction of a new product, a team involving product management, the advertising agency, and the marketing research specialists would decide what aspects of a product were most likely to be perceived positively by physicians. They framed these claims into concept statements, and tested the statements with doctors to find which resonated best. The winner was then chosen as the brand's positioning and used as the


integrating theme for the product launch and subsequent communications (Ries & Trout, 2000).

Such an approach worked fairly well when pharmaceutical companies produced a constant stream of genuinely new chemical compounds. But these days, drugs with genuinely different chemical structures are extremely rare. Worse yet for marketers, the pharmaceutical promotional channels jangle with a confusing clamor of competing products, while third party payers exert a growing influence on drug selection.

JSB Intelligence (2005)\(^1\) in its report analyzed the pharma market strategically. It concluded that besides product positioning, the pharmaceutical companies are distinctly positioning themselves on the basis of their capabilities, banking on their R&D strength, marketing network, and capitalization to decide their portfolio. Smaller pharma companies are consolidating forming a super net of pharma companies complementing their capabilities to each other. The Big Pharma companies are consolidating to lead the league as super pharma. Niche players are tending towards M&A to safeguard their focus, and achieve business goals.

### 2.4. MARKETING STRATEGY DIMENSIONS

#### 2.4.1. STRATEGY

Although strategy first became a popular buzzword during the 1960s, it continues to be the subject of widely differing definitions and interpretations. The following definition, however, captures the essence of the term:

A strategy is a fundamental pattern of present and planned objectives, resource deployment and interactions of an organization with markets, competitors and other environmental factors (Kerin, Mahajan, & Varadarajan, 1990)\(^2\).

\(^1\) JSB Intelligence (2005). *Strategic analysis of the pharma market: Future revenue models and key players*. United Kingdom: JSB Intelligence.

Above definition suggests that a strategy should specify (1) what (objectives to be accomplished), (2) where (on which industries and product market to focus) and (3) how (which resources and activities to allocate to each product market) to meet environment opportunities and threats to gain a competitive advantage.

Rather than a single comprehensive strategy, most organizations have a hierarchy of interrelated strategies, each formulated at a different level of the firm. The three major levels of strategy in most large, multiproduct organizations are:

a) Corporate strategy
b) Business level strategy, and
c) Functional strategies focused on a particular product market entry.

2.4.2. MARKETING STRATEGY

According to Kotler (2003)\textsuperscript{63}, marketing strategy is the marketing logic by which the business unit hopes to achieve its marketing objectives. It is an attempt by a corporation to differentiate itself positively from its competitors, using its relative corporate strengths to better satisfy customer needs in a given environmental setting.

The primary focus of marketing strategy is to effectively allocate and coordinate marketing resources and activities to accomplish the organization’s objectives within a specific product market. Therefore, the critical issue concerning the scope of a marketing strategy is specifying the target market for a particular product or product line. Next, organizations seek competitive advantages and synergy through a well-integrated program of marketing mix elements (primarily the 4Ps i.e. product, price, place and promotion) tailored to the needs and wants of potential customers in that target market.

2.4.3. MARKETING MIX STRATEGIES

Marketing mix strategy is a process where specific marketing elements are used to achieve an organization’s or individual’s objectives and satisfy the target market.

This is achieved by using four tools such as product, price, place and promotion. Product, price, place, and promotion strategies have remained key pillars of any successful pharmaceutical company (Abdi, 2009)\(^{64}\).

### 2.4.3.1. PRODUCT STRATEGIES

Product strategy refers to all the goods and services a company offers to the market. Also products may comprise physical products, services, information, places, organizations or ideas that can be offered for attention, acquisition or consumption that might satisfy a want or a need. Products are classified in two categories; tangible and intangible products (Kotler, 2003).

The product is therefore more than a branded, packaged good offered for sale. Its definition has been widened to include services and benefits and the services that can be achieved from the product. This refers to a core product or service, which can be changed by adding features and options. It consists of multidimensional entities and benefits offered to customers.

Product strategy consists of elements such as packaging, branding labeling and product attributes that are of good quality, style, features and design. Strong brand preference is an added feature to the product. A product which is an object or a service is produced or manufactured on a large scale with a specific volume of units. A successful new product is the result of careful marketing (Kotler & Keller, 2006)\(^{65}\).

### 2.4.3.2. PRICING STRATEGIES

Price represents the value of a good or service for both the seller and the buyer. In order for it to be of importance there has to be a defined price planning which means a systematic decision making relating to all aspects of pricing by a company involving both tangible and intangible factors, purchase terms, and the non-monetary exchange of goods and services. It is the only element in the

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marketing mix that produces revenue; the others produce costs. Price balances demand and supply because it makes the buyer and the seller agree on a certain value for goods and services (Peter & Donnelly, 2007). Price is one of the positioning methods and should be implemented in relation to target market, product mix, services and competition. Price should involve all the cost, otherwise companies will incur losses. Therefore, the management and the managers should understand how to set the price by considering lost margin and lost sales. Also factors such as demand, competition, distribution channels, internal environment and public authorities affect price setting (Woodward, 2004).

2.4.3.3. PLACE STRATEGIES
Place or distribution strategy involves delivering of products or services to the final user. The channel of distribution is very important to be considered depending on the size of the company and the nature of the product (Strauss, El Ansary, & Frost, 2006). It should also be estimated on whether to sell directly to the consumer or use intermediaries such as wholesalers and retailers. Cost is the most important factor to be considered when deciding on the distribution channel. Proper distribution planning which means a systematic distribution decision making process is also important for effectiveness and cost reduction (Baron & Kim, 2003).

There are two basic types of channels, a direct channel of distribution and indirect channel of distribution (Blythe, 2006). Direct involves the movement of goods and services from producer to consumers without the use of independent intermediaries. An indirect channel of distribution involves the movement of goods and services from producer to independent intermediaries to consumers and

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is usually used by companies that want to enlarge their markets, raise sales volume, reduce distribution functions and costs, and are willing to waive some channel control and customer contact (Baron & Kim, 2003).

The pharmaceutical distribution channel is indirect with usually three channel members i.e. depot/C&F, stockiest and chemist. Pharmaceutical companies appoint one company depot or C&F agent usually in each state and authorized stockiest(s) in each district across the country. Company depot/C&F sends stocks to authorize stockiest as per the requirement. Retail chemists buy medicines on daily or weekly basis from authorized stockiest as per demand. Patients visit chemists for buying medicines either prescribed by a doctor or advertised in the media. Here patient is end customer and doctor is direct customer for any pharmaceutical company. But for doctor customer is more important so he wants an effective supply chain management from prescribed company. For pharmaceutical companies their customer i.e. doctor is more important that’s why they emphasize more on supply chain management. Ultimately end-customer is benefited out of this. Customer management is now becoming an important consideration in the pharmaceutical industry.

2.4.3.4. PROMOTION STRATEGIES
Promotion strategy is important because the consumers are informed about the new products and their attributes before they develop positive attitudes toward them. For the goods and services in the market, promotion acts as a way to persuade and informing the end users so that they attain the product knowledge and hence like the product. A Satisfied customer will send word-of-mouth to the others thereby increasing the demand of the product. A good promotion involves product, distribution and price components of marketing (Evans & Berman, 1994)\textsuperscript{71}.

A business total marketing communications programme is called the "promotional mix" and consists of a blend of advertising, personal selling, sales promotion, brand management, product placement and public relations tools. It has been

\textsuperscript{71} Evans, J., & Berman, B. (1994). \textit{Marketing}. New York: Macmillan
established that many companies apply these promotion mix elements in order to increase sales revenue (Strauss, El Ansary, & Frost, 2006)\textsuperscript{72}.

2.5. EMPIRICAL EVIDENCES RELATED TO MARKETING STRATEGIES

Dirks & Danniel (1991)\textsuperscript{73} mentioned that company managers choose to introduce and/or re-emphasize marketing strategy for a number of reasons, which may range from personal interests to corporate policies. However the reason usually centers around an opportunities or an identified problem that the company management needs to explore. For example:

1. Introducing new products or services
2. Expanding into new markets.
3. Differentiating products or services.
4. Revitalizing products, services or markets.
5. Deleting or “de-marketing” product or service.
6. Responding to a drop in sales or profits.
7. Evaluating financial or legal risks of opportunities.
8. Enhancing company image, brand or reputation.

The pharmaceutical industry is highly complex. The technologies leading to drug discovery and development are at the limits of human knowledge. The huge size of the companies and the complexities of their processes and technologies presents many organizational and management challenges. The development and management of the distribution system is highly costly. However while excellence in managing all these aspects of the industry is a necessary condition for the survival of the global pharmaceutical companies, the uncertainty of the discovery process and the potentially huge returns from the discovery of a single drug means success in the industry depends on a high measure of luck.


\textsuperscript{73} Dirks, & Danniel. (1991). \textit{Advertising and promotion; an integrated marketing communications perspective} (3rd Canadian edition ed.).
Umesh Vyas (1994) in his project titled “A project on innovative marketing policy” had narrated the changing pharmaceutical marketing process, though pharmaceutical marketing has occupied a large momentum in a decade long time, leading to brand promotion through personalized communication. The researcher found that the pharmaceutical companies are becoming vibrant and changing as per the changing environment. He suggested that marketing strategies play a vital role in making a drug successful and only traditional marketing tool will not help. Marketing of pharmaceutical products go beyond on detailing doctors and visiting chemists for orders and schemes. The study also throws light on the attitude of marketing managers towards various changes in marketing of products.

Smith M. (2000)\textsuperscript{74} in his book “Pharmaceutical Marketing in 21\textsuperscript{st} Century” had narrated the change taking place in pharmaceutical industry today within the world of pharmaceuticals marketing in serious transition. The book goes beyond 4 Ps of marketing. The book provided lucid but brief review of excellence in pharmaceutical industry. The author also pointed out on marketing medicines for self medications which give new area of the study. One important comment came out of the book was that consumer and other organizations have the role of criticizing and complaining about promotion of prescription and non-prescription drugs. Direct to consumer advertisement are playing an important role in educating consumers on their health, improving relationship with doctors and above all for inducing safe self medication in minor ailments.

David (2001)\textsuperscript{75} in his study explained that individualized health management is one of the most exciting challenges facing health care marketing today. Greater access to health information has empowered consumers to take more control of their health needs, creating a whole new landscape for marketers, manufacturers, and service providers. Customization is the key to creating marketing campaigns that successfully target today's health conscious consumers. Drawing on individualized market intelligence and available genetic information,

\textsuperscript{75} David, C. (2001). Marketing to the consumer: A perspective from the pharmaceutical industry. Marketing Health Services, pp. 5-11.
pharmaceutical companies are learning to tailor products to meet the needs of this growing market.

Analysis of the pharmaceutical industry’s marketing tactics by Chiu (2005) reveals the extent of their influence on patient care and medical research. These tactics can be arranged into five categories according to the potential for harm to patients (from least to most harmful): physicians-targeted promotions, direct-to-consumer advertising, unethical recruitment of physicians, researchers’ conflicts of interest, and data manipulation in clinical trials. Drug companies’ promotions subconsciously influence physicians’ prescription patterns. Heavy advertising to consumers results in more prescriptions being written, whether or not the new drug is in the best interests of patients, and therefore strongly correlates with sales increases for the promoted new drug. The pharmaceutical industry’s public relation firms unethically recruit physicians to endorse their companies’ clinical studies. Pharmaceutical companies manipulate research data to prevent negative data from leaking to the public.

Saxena, (2005) focused on the processes and outcomes of globally distributed pharmaceutical companies and the changing marketing strategies when a pharma company shifts from acute base to chronic therapy base. He argued that the basis of success in any competitive context can be elemental level commercial success. The commercial success can be derived either from a cost advantage or a value advantage or ideally from a combination of both. He also gave an insight about shift in supply chain process and customer and end-customer perception which is the base of formulation of different marketing strategies. He suggested that the company must tailor its supply chain offerings to meet the needs of each of the market segment it serves.

Pharmaceutical companies are adopting aggressive marketing strategies to bank on early sales of newly launched products (JSB Intelligence, 2005). This gives

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their product a larger life time before expiry of patents. Report stated that companies are cooperating with the media and branding companies to formulate successful launch strategies for highly matured therapeutic and less matured therapeutic markets. Launched globally, with massive penetration, these products help compensate for revenue loss through patent expiry.

But Purcarea, Ratiu, Purcarea, & Popa (2009) suggested that in order to be successful, companies will need to stop the aggressive marketing focusing only on the product of the current model and recognize the interdependence of the payer, provider and pharmaceutical value chains; invest in developing medicines the market wants to buy; adopt a more flexible approach to pricing; develop plans for marketing and selling specialist therapies; manage multi-country launches and live licensing; form a web of alliances to offer supporting services; create cultures that are suitable for marketing specialist healthcare packages; develop marketing and sales functions that are fit for the future and a knowledge based commercial organization.

Kausherh (2006)\textsuperscript{78} in his book on “Pharmaceutical Marketing, Emerging Trends” explained on the changing global economy and specifically with more concern over healthcare. The Pharmaceutical industry is besieged with number of issues – competition from generic drugs, shrinking patent protected life, change healthcare policies of government and global competition. Pharmaceutical companies and their agencies will respond with new creative solutions in near future and more of innovative advertising & media campaign will be seen. The author also warned the pharmaceutical companies about the competition across boundaries and suggested to crafting a competitive strategy which is consumer centric and country specific.

Chagmati (2007)\textsuperscript{79} in his book on “Pharmaceutical Marketing in India: Concept Strategy and Cases” had critically examined the pharmaceutical marketing in Indian context. He had described the overviews of the Indian pharmaceutical market with nine ‘P’ goes beyond mega marketing and maxi marketing.

Understanding nine P’s i.e. Product, Price, Place, Promotion, Personal selling, Prescription, Policy, Power and Public relation is indeed critical for creating and extending successful strategies in Pharmaceutical marketing. He commented on how pharmaceutical promotion will be more challenging than now. Only innovative marketers with differentiation strategies are likely to be successor. The author suggested that sales force in pharmaceutical industry should be trained efficiently not only on product knowledge but also on competitive advantage and price related area, which will help companies market the products at a larger scale.

Pawar (2007)\(^{80}\) in his book titled “A handbook on community Pharmacists” (Exclusively for Chemists & Druggists) explained the working pattern of chemists and problems faced by chemists in convincing and counseling the customers. The author revealed the existence of pharmacists and their different roles which are not played by the pharmacists and chemists. He pointed that pharmacists are underutilized in India as they are only involved in pharmaceutical trading and not in pharmacy care through patients counseling. Hence continuous training of pharmacist is the only option for updating the knowledge of pharmacist. The author explained the concepts of community pharmacist, role of pharmacist in global market place where retail pharmacy formats like chain of pharmacists are seen growing.

Jain (2009)\(^{81}\) expressed his view on marketing strategies for pharmaceutical companies and stated that traditional pharmaceutical marketing has focused on contacting doctors with huge sales forces that were often directed to follow the carpet bombing method. Promotional budgets were high as those times were unknown of the phenomenon called recession. Mass communication was the norm and money was poured in to reach out to a huge number of largely scattered mass.

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Marketing plans were centered on product features and benefits in addition to sales force strength.

Days of traditional pharmaceutical marketing are nearly over. In order to make present era successful and profitable, marketing strategies have to be realigned (Jain, 2009). Marketing and commercialization strategies are developed on the strong foundation of targeting and segmentation of customers and markets, to accommodate the evolving marketing dynamics and customer feedback. Meticulously prepared comprehensive marketing strategy is essential for the successful commercialization of a brand. Highly pro-active marketing leadership would be instrumental in taking timely initiatives in response to the customer feedback and evolving market dynamics resulting in greater potential for overall market success.

Javid (2009) explained the Four E’s of successful pharmaceutical marketing strategies. He stated that at operational level, industry needs to evaluate and measure the four E’s of performance to witness dramatic results from the sales and marketing processes: efficiency, effectiveness, empowerment and enhanced accountability. In this system of pharmaceutical marketing strategies, doctors and retailers are the core customers and the major thrust is given to build and retain these customers. There can be various ways through which a business organization can achieve success in the market, but if all those ways can be addressed, then it can be rightly said that the triangular linkages or the relationship between these three parties (company, customers and competitors) determine the success and failure of pharmaceutical marketing strategies.

McKinsey and Company (2010) had undertaken a research to find the strategic position of Indian pharma in 2020. They suggested that traditional sales force management approaches have lost their edge. These are not suited to the current context as they are designed to capture incremental share rather than drive

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aggressive market growth. Players will now need to shift focus to three differentiators that will help achieve sales force excellence. The first differentiator is enhanced quality of performance management and dialogue. The second differentiator is the added focus on people. The third differentiator is the mindset to challenge long standing myths, such as the view that newly deployed sales representatives can be fully productive only over a 2 to 3 year timeframe.

Thakur & Ramacha (2012) discussed the generic product entry routes in different jurisdictions (US, Europe and India) in the light of nuances in legal provisions. It focused on the various levels available for the entry of generic drug products such as safe entry, at risk entry or by exploring licencing options. It further discussed the strategies employed by the innovator companies in order to gain the commercial benefits over a drug even beyond the term of the patent. These strategies includes follow-on drugs, creation of patent clusters, authorized generics, extensive branding and marketing.

Ying (2013) analyzed the marketing strategy plan for Jiangxi Chenxin Pharmaceutical Company in the medicinal market. He suggested that the company needs to pay more attention to customers and its brand images than it does today. The final future marketing strategy plan should be changed based on the economic development and the industry changes. He further suggested that the case company needs to change the traditional marketing strategy system that seems to be unsuitable for them to become a manufacturer. The company should develop products, to achieve growth, create value and obtain economies of scale.

Shetty & Modi (October, 2013) analyzed the changing landscape of the Indian pharma industry and found that the Indian pharmaceutical industry is witnessing regulatory challenges like delays in clinical trial approvals, uncertainties over the FDI policy, the new pharmaceutical pricing policy, a uniform code for sales and

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marketing practices and compulsory licensing. It also pointed out that there has been a slowdown in the growth of the top Indian as well as multinational companies (MNCs). However, the slowdown is more prominent in the MNCs than in the Indian companies. It also found that companies have focused on increasing the productivity of their field forces with an aim of optimisation, re-deploying in high potential territories, implementing robust processes and using technology to monitor the performances on regular basis, thereby trying to bring in enhanced efficiency in the overall sales force.

Dixit, (2008)\(^\text{87}\) explored the changes in the marketing strategies by the pharmaceutical companies after WTO product patent regime. He concluded that marketing strategies of Indian pharmaceutical companies have indeed changed after implementation of product patent regime in India. The change in marketing strategy is not dependent on size of the company. Small, medium & large pharmaceutical companies have all undergone changes in marketing strategy. The marketing strategies of MNC pharma companies have also changed in India although their objectives & strategies are different from those of domestic Indian pharma companies. Introduction of new molecules is the most preferred marketing strategy of Indian pharma companies followed by change in composition of existing medicines and new drug launches, after implementation of product patent in India.

Several research articles also studied the impact of Trade related Intellectual Property rights (TRIPS) and WTO product patent law on the Indian pharmaceutical industry. The major empirical research studies are by (Sampath, 2005)\(^\text{88}\) and (Lanjouw, 1998)\(^\text{89}\).

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Lanjouw, (1998) had analyzed how the introduction of product patents for pharmaceuticals may benefit or adversely affect India. Her analysis is based on information obtained over a period of six months, from September 1996 to March 1997. Although the paper does not arrive at a conclusive answer to whether the introduction of pharmaceutical product patents in India will bring about heartless exploitation of the poor and suffering, still it does provide some suggestions about the way events might unfold as the policy is implemented.

Agrawal & Thakkar, (1997) have examined the strategies adopted by different companies to survive the phase of patent expiration. The authors suggested that companies should not increase the prices when the patent is about to expire, rather if the marketing strategies are well planned the costs involved in product development can be recovered even after the expiry of the patent. Companies need to have a combination of product modification, promotional and pricing strategies to save a company from losing market share on a patent expired product.

Sampath, (2005) in her research paper analyzed 103 Indian pharmaceutical firms. The scope of her study was limited to analyzing emerging firm strategies of Indian firms as a response to a gradual transition to product patent protection. The survey found that Indian firms are adapting a combination of cooperative and competitive strategies, in order to adapt and as well as capitalize on opportunities created by the new patent regime. The Indian domestic pharma companies have faced the international competition and although product patent has thrown up lot of opportunities, still consolidation will happen in the industry in coming years. The study also found a high correlation between export intensity and R&D investments in the Indian Pharma sector. Firms that had greater revenues from exports were able to invest a larger amount on R&D.

The studies which have focused specifically on the change in strategies of Indian pharmaceutical companies are (Madanmohan & Krishnan, 2003)\(^90\), (Chittor &

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Madanmohan & Krishnan, (2003) have dealt upon the adaptive strategies in the Indian pharmaceutical industry. They have analyzed several adaptive strategies to be used by the Indian pharmaceutical companies to cope up with the WTO product patent law. They have also analyzed the factors driving the movement towards consolidation and augmentation in the sector.

Chittor & Ray, (2003) researched on the internationalization paths of emerging economy firms through a strategic group analysis of internationalizing firms in the Indian pharma industry. This study analyzed proprietary data set of strategic variables from forty firms and the analysis revealed significant variation in their internationalization strategies.

Singh & Surendar, (2003) focused upon the strategies used by small and medium scale pharma companies to meet the challenges of the patent regime. The larger companies like Ranbaxy and Cipla etc. were preparing for the new patent regime since 1995 onwards, however the small and medium scale pharma companies did not make much of an effort and now realizing that their top lines and bottom lines are going to be impacted because of product patent they have devised few strategies: Toll Manufacturing, Bottom fishing, In-licensing, Niche plays and contract manufacturing. The article is based on interviews with top executives of small and medium Pharma companies who have implemented with success the above mentioned strategies.

Phani & Saranga, (2003) have found out that there is evidence that there appears to be a direct relationship between internal efficiencies and higher growth. They

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have concluded that irrespective of the growth strategies adopted by the individual firms, internal efficiencies will have a higher probability of survival and growth. Thus the internal efficiencies would help firms in the Indian Pharma Industry to overcome any new challenges arising out of the change in patent process from the year 2005.

Dey, (2006) has explored the strategies adopted by global pharma majors in India in view of the product patent in India. Among the various vigorously being pursued by MNC pharma companies are accelerating patented product launches, Mergers & acquisitions, reducing R&D expenditure by outsourcing clinical trials, sourcing their manufacturing requirements for API from independent manufacturers in India. However MNC’s in India are faced with host of problems like price control, competition from big domestic Indian Pharma companies and data Exclusivity. The author concludes that MNC’s should go in for innovation, thereby slowly developing newer molecules and at the same time becoming price sensitive.

Nair, (2007) has stressed upon the fact that if visionary strategies are adopted by Indian pharma companies then the future will be bright for these companies. Strategies such as Drug Discovery, Para IV filings, focus on production of high quantum and moderately priced generics, strengthening API/drug intermediates production, outsourcing to MNC’s upgrading manufacturing facilities to USFDA standards and investing in Pharma support services such as analytical services, diagnostic services, data management services and clinical research operations will prove worthwhile in the long run and help India to move up to the top of the global Pharma Industry.

The big pharmaceutical companies have been quick to realize the benefits of the Internet. Almost every pharmaceutical company now has a home page, and many companies have established sites dedicated to specific products. Others have created sites of general interest to consumers. A number of pharmaceutical companies have also targeted health care professionals by giving them access to medical and clinical information online. Many of these services offer the added
convenience of hyperlinks to other information sources and online pharmacies. Some of the studies pertaining to internet or digital marketing have been illustrated below.

Manhattan Research, (2009)\(^{96}\) overviewed the latest consumer and physician digital health trends, explored digital marketing examples, and shared helpful resources for staying up-to-date on the latest digital pharma news and information. Traditionally, pharmaceutical companies have deployed sales reps armed with product information and freebies to promote products to doctors. But technology trends and changing media preferences are forcing pharmaceutical companies to reassess how they reach and build relationships with physicians. In the past, doctors were limited to offline materials like journals and references for accessing medical information and news. But now-a-days physicians have access to all of the resources they need to stay abreast of the latest knowledge in the field. In fact, the average physician now spends a full work day (eight hours) per week using the Internet for professional reasons.

Zanamwe, Bere, Zungura, Nyamakura, & Muchangani (2012)\(^{97}\) explored the use of e-commerce in the pharmaceutical sector of Zimbabwe. It was found out that slightly more than 50 percent of pharmaceutical companies had websites. Also, most popular uses of e-commerce technologies were e-mailing, generation of direct sales, provision of customer service and support, price comparison, purchasing and ordering and internal communications. Lastly, the cost of e-commerce technology equipment, absence of a company’s website, complexity of e-commerce technologies and privacy related issues came out as the strongest e-commerce usage barriers in the sector.

Dickov, Mitrović, & Kuzman (2011)\(^{98}\) analyzed the functioning of pharmaceutical companies. The authors stated that the usual set of people in decision-making on


the purchase of pharmaceutical products is divided into three key agents of demand on this market. The target market is influenced by a set of external (macro-) environment factors, which are beyond the company’s control, at least not in the short term and directly. (Dickov, Mitrović, & Kuzman, 2011). Between the external environment and the target market, there is a mechanism of influence through variables that an organization can control, manifested as marketing mix instruments.

With due appreciation of the key idea of marketing, the consumer/patient remains the central element, but their decisions to purchase and use pharmaceutical products (especially prescription drugs) are not independent; they are primarily determined by the influence of both prescribers and payers (Suhrcke M, 2005). Pharmaceutical industry marketers must incorporate the influence of these elements into the creation and delivery of value to consumers through an appropriate marketing mix (Dickov & Dickov, 2010, Carter & Chitturi, 2009).

Pharma companies are exploring further avenues through forward integration with health care and medical equipment. The forward integration of pharma and health care services is resulting in health care kiosks owned by pharma companies or health care companies (JSB Intelligence, 2005). The kiosk will promote the integrated health managed care model, using the best medical equipment and targeted treatment solutions. The pricing structure will be on the basis of the effectiveness and success of the treatment.

The customer market for pharmaceuticals is changing. Consumers are becoming more well-informed, it is harder for the direct sales force to find time with

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102 JSB Intelligence. (2005). *Strategic analysis of the pharma market: Future revenue models and key players.* United Kingdom: JSB Intelligence
doctors, and retailers and wholesalers have greater power in negotiating prices. Consequently, some of the practices of consumer products companies are now entering the pharmaceutical industry, such as price and promotion management, and analysis of product and channel activity.

Alt (2003)\textsuperscript{103} discussed on developing an integrated customer relationship management strategy by drawing on elements from established business redesign. He found that institutional regulations that have been in place for decades are being removed and competitive pressures force pharmaceutical companies to adopt customer-oriented strategies. Information technology which has traditionally been applied to many processes in this industry is an important enabler for the interaction with key customer segments such as physicians and patients. However, in developing and transforming customer relationships, changes are required regarding strategy, processes as well as the systems architecture.

Depending on the category of drug the nature of the marketing operation of pharmaceutical companies is different (Buckley, 2004)\textsuperscript{104}. There are essentially two categories of drugs: self-medication or over the counter (OTC) drugs, and prescription drugs or ethical drugs (De Mortanges & Rietbrock, 1997)\textsuperscript{105}. OTC drugs are promoted directly to consumers as well as physicians and other healthcare professionals and range from analgesics such as paracetamol to anti-histamines. What is categorized as OTC varies from country to country and is dependent on the local legislative framework.

Cjorstens (1991) identified four main buying parties for prescription drugs:

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


2. Influencer – hospitals, nurses, professors, reimbursement agencies
3. Consumer – patient
4. Financier – partly patient, partly government or third party (varies by country), managed health care organization (hospitals, Health Maintenance Organizations etc.).

The World Health Organization (1988)\textsuperscript{106} defines pharmaceutical promotion as all information and persuasive activities executed by pharmaceutical manufacturers and distributors, attempting to affect the prescription, supply, purchase, and/or use of medical drugs (Spiller & Wymer, 2001)\textsuperscript{107}. Pharmaceutical companies undergo two streams of marketing, a push stream targeted at the decision maker and a pull stream targeted at the end consumer (Auton, 2004\textsuperscript{108}; Groves, 2002\textsuperscript{109}; Parker, 2005\textsuperscript{110}).

The push strategy aims at influencing physicians’ prescription choices through promotional push elements like detailing, drug sampling, journal articles, journal advertising, conferences and medical meetings, research grants and sponsoring of continuing medical education programs (Parsons & Abeele, 1981\textsuperscript{111}; Hemminki, 1975\textsuperscript{112}; Spiller & Wymer, 2001). On the other hand, the pull strategy aims to place pressure over the physician to prescribe a specific drug in accordance to a patient's request. Direct-to-consumer advertising (DTCA) and illness promotion are among the widely used marketing efforts to advertise to patients (Parker, 2005).

According to (Williams & Hensel, 1991) classification, pharmaceutical promotional push elements can be further classified into commercial and non-commercial informational channels. Commercial sources are informational channels initiated by pharmaceutical companies and mainly focus on delivering direct promotional messages on a certain drug. Among the commonly used commercial informational sources are detailing, drug samples, gift premiums, journal advertising, and direct mail. Non-commercial sources, on the other hand, are usually initiated by clinical researchers, public health critics, academic physicians, and pharmaceutical companies. Among the commonly used non-commercial informational sources are journal articles, clinical trials, colleagues’ recommendations, conferences and medical meetings (Rod & Saunders, 2009; Williams & Hensel, 1991).

For marketing pharmaceutical products companies require more field force to remind their direct customer (doctor) of their products on a daily basis. Moreover field force should have good knowledge of product schemes/offers and good rapport with retailers (Javid, 2009). Field force also ensures availability of their products to convince doctors and push their products.

Pharmaceutical companies rely on sales/medical representatives to deliver marketing messages to doctors. Hence, priorities of doctors’ visits for pharmaceutical representatives are set as: doctors call plan. These representatives often do not enlist into the call plan, those doctors who do not prescribe their products, and devote extra time and effort on doctors who are most responsive to their products. If armed with the right information, a representative can call on doctors according to their likelihood of responding to specific brands, and can

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carry out detailing and sampling of specific brands, resulting in higher customer profitability (Wittink & Neslin, 2002)\textsuperscript{116}.

Manchanda (2004)\textsuperscript{117} developed a model to measure the effectiveness of direct sales calls on individual physicians. The results of the study show that the least responsive physicians receive almost twice as many direct sales calls as the most responsive. This implies that if the company transferred their sales force effort away from the least responsive physicians to the most responsive physicians, the company would be likely to see higher sales. The study found that an excessive amount of sales calls were made to the top 20 percent of prescription writers regardless of their responsiveness to direct sales calls. However, the authors did note that the most frequently visited physicians also may receive many sales calls from competing drug companies, which may lower their responsiveness to the average direct sales call. The study suggested that the most efficient allocation of sales force efforts would be as follows: The company should order its physicians by responsiveness (high to low). Subject to the cost of making a sales call, the company should send its sales persons to the more responsive physicians rather than the less responsive one, regardless of the average number of prescriptions written.

Pharma marketers are, therefore, required to decide on the number and timing of calls they have to make to each physician individually as a part of their promotional endeavors. Past research has revealed that the product sampling made by these marketers could influence the physician’s decisions to write long-term prescriptions for patients (Morelli & Koenigsberg, 1992)\textsuperscript{118}. Researchers (Narayanan & Manchanda, 2006)\textsuperscript{119} (Manchanda, Rossi, & and Chintagunta, 2006) developed a model to measure the effectiveness of direct sales calls on individual physicians. The results of the study show that the least responsive physicians receive almost twice as many direct sales calls as the most responsive. This implies that if the company transferred their sales force effort away from the least responsive physicians to the most responsive physicians, the company would be likely to see higher sales. The study found that an excessive amount of sales calls were made to the top 20 percent of prescription writers regardless of their responsiveness to direct sales calls. However, the authors did note that the most frequently visited physicians also may receive many sales calls from competing drug companies, which may lower their responsiveness to the average direct sales call. The study suggested that the most efficient allocation of sales force efforts would be as follows: The company should order its physicians by responsiveness (high to low). Subject to the cost of making a sales call, the company should send its sales persons to the more responsive physicians rather than the less responsive one, regardless of the average number of prescriptions written.

\textsuperscript{117}Manchanda, P. (2004). Marketing prescription drugs: How effective are direct sales calls? Alumnius Online , 36 (3).
have also argued that such marketing efforts made by the firms may have both informative (e.g. reducing cognitive uncertainty) and a persuasive (e.g. inducing positive affect) roles. The most useful research in this direction is probably the sparse literature in medicine that examines the motives of physicians while dispensing free samples to the patients. Such motives could emanate from factors such as: (1) financial savings; (2) convenience; (3) immediate initiation of therapy; (4) demonstrating appropriate use of drugs; (5) adjustment of doses; (6) evaluating effectiveness or adverse effects of drugs (Chew, et al., 2000) (Duffy & Clark, 2003).

Promotion-induced subconscious influence is a widely studied phenomenon. A 10-year study of internists at seven university hospitals, published in 1990, found that frequent contact with sales representatives also changed prescription practice. Eleven years later, in a study, Parker, (2005) reached the same conclusion: Doctors who had contact with pharmaceutical representatives were thirteen times more likely to ask that a particular drug be added to an insurance plan’s list of approved drugs. An ideal physician provides his or her patients the best available care for the most economical price; however, despite physicians’ reassurances, studies show that promotions influence how they prescribe. If doctors under subconscious influence prescribe the promoted drug and it is a more expensive alternative, thereby causing patients to incur higher treatment costs, in theory at least, the patients are still receiving quality care.

Studies (Gönül, Carter, Petrova, & Srinivasan, 2001) have revealed that detailing has a positive and significant effect on doctors’ prescription of specific

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brand of drugs. Others find that detailing has a very modest effect (Mizik & Jacobson, 2004) or no effect at all (Rosenthal, Berndt, Donohue, Epstein, & Frank, 2003) on brand prescriptions or sales. Leeflang, Wieringa, & Wittink, (2004) pointed that the incongruent effects of detailing are mainly due to the marketing expenditures made by the firms across different brands. Promotion of brands would vary in accordance with physicians’ preference and responsiveness of the marketers to promote them through detailing, frequent meeting or by using other promotional instruments. Though marketing efforts by pharmaceutical companies have positively affected the physicians’ prescriptions, diminishing returns to detailing have also been frequently reported. Manchanda, Rossi, & Chintagunta, (2004) found that product detailing had positive effects on prescription behaviour of high-volume physicians, while the low-volume physicians were found to be more attentive and responsive towards detailing.

When the firm promotes a more effective drug, as compared to a less effective drug, its ability to lower physician uncertainty about the drug and increase physicians’ affect toward the drug is higher, as there will be stronger scientific evidence to back up the marketing effort (Azoulay, 2002). Narayanan & Manchanda, (2006) argued that a physician may financially subsidize low income or low-coverage patients through sample-dispensing and the prescribed drug is administered as a free sample, thus adding to the misery of a pharmaceutical company by low volume returns on investments.

Doctor-targeted promotion takes a variety of forms:

• Gifts, such as free samples, small stationery (Riccardi, 2002)\textsuperscript{129}, travel to conferences and educational events, and, some argue, cash (Medical Marketing and Media, 2003)\textsuperscript{130}, (Prawirosujanto, 2001)\textsuperscript{131}, (Strout, 2001)\textsuperscript{132}.

• Sponsorship of conferences and educational events (Moynihan, 2003)\textsuperscript{133}, (Hayes, Allery, Harding, & Owen, 1990)\textsuperscript{134}, (Komesaroff & Kerridge, 2002)\textsuperscript{135}.

• The use of key opinion leaders – i.e. senior clinicians and medical educators as speakers at learned conferences (Lerer, Pharmaceutical marketing segmentation in the age of the internet, 2002)\textsuperscript{136} (Burton & Rowell, 2003)\textsuperscript{137}.

• Funding of medical journals through advertising.

Pharmaceutical companies use medical journals to advertise their products, and frequently advertising revenue is the only source of funding of these journals, which are often sent free to doctors. (Smith R., 2003)\textsuperscript{138}, the editor of the British Medical Journal, writes thus of advertising by Big Pharma “To attract advertising these publications have to be read by the doctors whom the advertisers want to reach. So the free publications work hard at making themselves attractive, relevant, interesting, and easy to read – in contrast to journals, which are often delivering complex, difficult to read material of limited relevance.” Davidoff,


\textsuperscript{130} Medical Marketing and Media. (2003, April 4). Court documents show Merck Medco received $3 billion in pharma rebates. \textit{Medical Marketing and Media} , p. 3.


\textsuperscript{135} Komesaroff, P. A., & Kerridge, I. H. (2002). Ethical issues concerning the relationship between medical practitioners and the pharmaceutical industry. \textit{The medical journal of Australia} , 176 (3), 118-121.


DeAngelis, Drazen, Hoey, Hojgaard, & Horton, (2001)\textsuperscript{139} write of a decision among the editors of some of the world’s largest medical journals to adopt a common policy of disclosure of information about the source and validity of articles submitted for publication, and possible conflicts of interest.

Separate studies by McLnney, Schiedermeyer, & Lurie, (1990)\textsuperscript{140}, Banks & Mainour, (1992)\textsuperscript{141} and Chren, Landefeld, & Murray, (1989)\textsuperscript{142} all found that there was a strong correlation between doctors’ tendencies to recommend drugs and their receipt of gifts/sponsorship/non-related payment etc. Studies by Wazana, (2000)\textsuperscript{143}, Chren, Landefeld, & Murray, (1989) and Thomson, Craig, & Barnham, (1994)\textsuperscript{144} all show that gifts impact on doctors’ prescribing practices. Wazana, (2000) examined 29 empirical studies of the impact of interactions between the medical profession and Big Pharma. Synthesizing these findings certain negative outcomes were found to be associated with interactions with the industry:

- Inability to identify inaccurate claims about medications
- Rapid adoption and prescription of new drugs
- Formulary requests for medications without important advantages over existing listed medicines
- Non-rational prescribing behaviours
- Increased prescribing rates, and
- Prescribing of fewer generics and more expensive new medications at no demonstrated advantage.


Komesaroff & Kerridge, (2002) also point to the many studies that indicate the advertising rather than clinical evidence alone affects clinical decision-making. Peay & Peay, (1998)\(^{145}\) found that physicians exposed to advertising are more likely to accept commercial evidence, rather than well-established scientific views.

As Lexchin & Mintzes, (2002)\(^{146}\) argue, if advertising results in these negative outcomes with physicians who are more knowledgeable about drugs and can more easily access objective information, “how realistic is it to believe that consumers will be positively affected?”

In contrast to traditional norm of mass communication, today, the product is promoted through personalized communication strategy and media like web-based initiatives, interactive teleconferencing and text messaging. The broad idea remains to tap as many technologically enhanced communication ways as possible. Further, companies are training their field forces for a two–way communication with the customers. It can be said that consultative marketing is gaining importance (Jain, 2009).

### 2.5. SUMMARY

The above review presents the valuable contributions from different researchers on various aspects related to marketing strategies of pharmaceutical companies. Although the aspect of marketing is vital for the growth of the pharmaceutical companies, very little comprehensive research is available to study the marketing strategies of pharmaceutical companies.

The literatures available provide insights on single aspects of marketing. For example (Lerer, Pharmaceutical marketing segmentation in the age of the internet, 2002) (MacLennan & MacKenzie, 2000) (Mittal & Singh, 2010) talks of segmentation aspect in pharmaceutical companies. Similarly targeting and

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positioning have been dealt by very few researchers like (Contextweb, 2011), (Padhy & Patnaik, 2002), (Stephen, 2007), (JSB Intelligence, 2005), (eMarketer, April, 2011) and (Vanderveer, 2005).

The other aspects of marketing specifically the marketing mix have not been discussed in a combined form but its components mostly promotional aspects have been explored by various researchers. Few noteworthy contributions related to pharmaceutical promotion are (Autton, 2004), (Groves, 2002), (Parker, 2005), (Parsons & Abeele, 1981), (Hemminki, 1975), (Spiller & Wymer, 2001), (Chiu, 2005).

Few authors also studied the detailing and product sampling aspect of marketing. Few of them are (Manchanda, Marketing prescription drugs: How effective are direct sales calls?, 2004), (Manchanda, Chintagupta, & Rossi, Response Modeling with Non-random Marketing Mix Variables, 2004). Separate studies by McLnney, Schiedermeyer, & Lurie, (1990), Banks & Mainour, (1992) and Chren, Landefeld, & Murray, (1989) all found that there was a strong correlation between doctors’ tendencies to recommend drugs and their receipt of gifts/sponsorship/non-related payment etc. Studies by Wazana, (2000), Chren, Landefeld, & Murray, (1989) and Thomson, Craig, & Barnham, (1994) all show that gifts impact on doctors’ prescribing practices.

The studies which have focused specifically on the change in strategies of Indian pharmaceutical companies are (Madanmohan & Krishnan, 2003), (Chittor & Ray, 2003), (Sampath, 2005), (Singh & Surendar, 2003), (Agrawal & Thakkar, 1997), (Phani & Saranga, 2003), (Dey, 2006) and (Nair, 2007). But these studies focused on various strategic issues like growth strategies, product patent related strategies or survival strategies etc.

Saxena, (2005) focused on the processes and outcomes of globally distributed pharmaceutical companies and the changing marketing strategies when a pharma company shifts from acute base to chronic therapy base. Similarly Dixit, (2008) found out the changes by the pharmaceutical companies regarding the product and
any significant preference towards the marketing strategy changes of the Indian Pharma companies post WTO product patent regime.

On the basis of above discussions it can be concluded that there is no comprehensive study which dealt with all the aspects of marketing strategies. Also there is no comparative study on the marketing strategies of pharmaceutical companies except the study by Dixit (2008) but it is also restrictive to post WTO patent regime. Hence this study has been undertaken looking at the existing research gap.