

Does brand differentiate pharmaceuticals?

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Abstract

INTRODUCTION: Role of marketing in pharmaceutical industry is increasing and inspiration by successful brands known from consumer goods market influenced pharmaceutical companies enough to switch their attention to branding initiatives. Still there is little evidence that pharmaceutical brands represent anything more than product only.

OBJECTIVES AND METHODS: This study aims to explore the area of branding in pharmaceutical industry. Central hypothesis of the research has been that brand and its emotional content differentiate pharmaceuticals as well as rational data derived from clinical studies. It has been tested by extensive review of available literature as well as by primary research focused on drivers of physicians' attitudes towards products and their influence on prescribing behavior. The research has been conducted in the sample of psychiatrists in the Czech republic.

RESULTS: No evidence about pharmaceutical brand exceeding value of product has been found in reviewed literature. Nevertheless, the primary research conducted in the sample of Czech psychiatrists indicates that emotional brand in pharmaceutical industry exists and enables author to draw a model of Customer/product life cycle that describes likely impact of functional, emotional and self-expressive benefits throughout pharmaceutical product's market presence.

CONCLUSIONS: Pharmaceutical brand is likely to develop differently than the same of consumer goods products – it seems to be built predominantly on long-term positive experience. Marketing role in this process should lie in finding relevant product position and building brand identity compliant with real product capabilities.

INTRODUCTION

Pharmaceutical companies used to market and sell their products through facts and data. New drugs were easy to differentiate from their competitors and both physicians and patients bought easily up to their advantages in terms of efficacy and/or side effects. But not anymore.

Since the landscape of the industry is changing, competition intensifies, pipelines are drying up

and new drugs don't usually bring breakthroughs in treatment, pharmaceutical companies seek for a new concept to differentiate their products and maximize their lifetime value.

Hence branding appeared as an appealing path to follow. It has been proved effective in consumer goods markets so why not in pharmaceuticals? However, there is little evidence supporting the idea that

doctors and patients will consider emotional concepts around brands as important as facts and data they have always relied on. Therefore we need to ask: Does branding in pharmaceutical industry really work? Is it valuable for consumer goods only or is it also applicable in such information intensive products as pharmaceuticals?

The central hypothesis of this work has been set as follows:

Brand and its emotional content differentiate pharmaceuticals as well as rational data derived from clinical studies.

Validity of central hypothesis is tested through research that consists of conceptual literature review and analysis of primary data collected in the Czech pharmaceutical market.

PHARMACEUTICAL INDUSTRY

External environment

Political environment

Majority of pharmaceutical companies' revenues come from developed countries – USA alone make 50% of global pharmaceutical market (Butler, 2002). These states are democratic and politically stable. On the other hand majority of the world population live in developing countries of East Asia and Africa. It is here where HIV and AIDS represent major healthcare problem and where (especially East Asia – e.g. China) developing civilization and increased life expectancy will bring new challenges. Political system in these countries is very different but in global less developed and stable than in the West.

Enlargement of EU has changed the business environment in Europe, which together with the U.S. and Japan represent the biggest part of the global market. Dismantling of trade barriers between East and West of Europe strengthened the problem of parallel export of pharmaceuticals from lower-priced countries to higher-priced markets (Wadman & Hütt, 2004).

Economic environment

Global economy is going through hard times. While stock markets in the USA have not fully recovered after internet bubble has burst, European economy suffers from high taxation and rigid labour market regulation. Despite that the global pharmaceutical market is steadily growing. The projected average annual growth will expand the global market from \$354bil. in 2002 to \$545bil. in 2005 (Lewis, 2001).

Stock prices of global pharmaceutical companies have declined in both 2003 and 2004. Still high price/earnings ratio of pharmaceutical stocks together with drying companies' pipelines make positive change in stock price evolution improbable. As a result pharmaceutical companies re-structure (thousands of people were dismissed in 2004) and cut expenses to reduce their cost base.

Social factors

Population in developed countries is aging. Life expectancy was continuously growing from 44 years before First World War to approximately 73 years in 1980s. Nowadays, it has increased to 76 years. This means that those who don't die of ischemic heart disease or cancer are likely to suffer from some sort of ageing disease, such as Alzheimer's or stroke (Butler, 2002). Increased life expectancy and focus on new – previously untreated – diseases translate into the growth of global pharmaceutical market.

Technological factors

Because of rapid development and high prices of modern technologies research based pharmaceutical business is concentrated into the hands of multinationals. This hegemony is disturbed by small biotechnological companies that focus on R&D only and seem to be significantly more effective than the global giants. Since they don't have the power to bring the products to the market, they either sell their inventions to multinationals or they form strategic alliances with them.

Legal environment

Patent protection of innovative pharmaceutical products is restricted to 10–12 years after the molecule registration. Companies have therefore limited window of opportunity to make their business from the product before it is destroyed by arrival of its generic copies. Therefore producers strive to shorten the time from molecule registration to market entrance. Historically, the R&D process has taken around 10–12 years, today, the objective is to launch to market in an average of just 7 years (Butler, 2002).

Pharmaceutical market is legislatively tightly regulated both in terms of prescription (indications, prescription limitations, etc.) and promotion (except of the USA, promotion to non-healthcare specialists is forbidden). In the USA, where FDA changed its ruling, direct to consumer advertising emerged over the last 7 years. The result is that patients now have much greater access to information and demand from patient to doctor has increased (Butler, 2002).

Environmental factors

Tightening environmental legislative can increase production costs of medicine. This probably represents one of reasons why multinational companies move their production facilities from West to developing countries or sometimes outsource part of their production to third parties. Animals' protection and the anti-drugs or anti-globalization movements can represent a significant threat to pharmaceutical companies, especially in developed western countries.

Situation in the industry

Rivalry within the industry

Despite certain consolidation taking place in 1990s, the pharmaceutical market remains very fragmented – market share of the world largest pharmaceutical companies is only around 8% (Lewis, 2001). Additionally,

there is a significant amount of excess capacity in all parts of the value chain (Pursche, 1996) and therefore further consolidation of the industry seems to be inevitable. Consequently, the rivalry within the industry is and will remain very high.

Bargaining power of suppliers

Traditionally, the power of “standard” suppliers in pharmaceutical industry (supply of basic chemical entities, packaging materials, etc) has been relatively weak. Currently, with drying pipelines and emerging sources of potential breakthrough molecules (e.g. biotechnological research companies) the bargaining power of these “new” suppliers is growing (Hermanek, 2002).

Bargaining power of buyers

The role and structure of buyers is changing and their bargaining power increasing (see Figure 1). For many years and in most countries physicians have been the principal targets for pharmaceutical companies. They played roles of influencers, gatekeepers and also decision makers. Now, as the result of government efforts the power between the key stakeholders within the healthcare network is shifting and pharmaceutical companies will have to take account of a broader range of stakeholders, including payers, patients, nurses and pharmacists (Wadman & Hütt, 2004).

Threat of new entrants

The pharmaceutical industry is probably the most research-intensive industry – the U.S. research based pharmaceutical companies spend on average up to 20% of their income on research and development, which is significantly more than the overall industry average of 3,8% (Lewis, 2001). The total amount of R&D expenditure in the industry is steadily growing (Moss & Schuiling, 2003 – see Figure 2). R&D intensiveness makes the entry of a new significant player into the market very difficult, almost impossible.

Other significant barriers to entry are selling power and share of voice. Salesforces have increased in size ten-fold in the last 10–15 years and they represent the single most expensive part of the marketing mix in any global pharmaceutical company (Butler, 2002).

Threat of substitution

The threat of generic substitution of original medicinal compounds is significantly increasing. Generics are drugs based on molecules that are no longer protected by patents, and therefore can be produced by any company with facilities to do so. Companies concentrating on generic production spend little, if anything, on R&D. As a result they are able to sell their products at far lower prices than original producers. Both governments and consumers favour generics as means of reducing the costs of medicines and there is therefore pressure on doctors to prescribe cheaper generics, rather than original brands (EIU Special Report No R201). As a result, the growing number of products are switched to OTC (over the counter) status due to pharmaceutical companies’ desire to defend their products as their patents expire (Platford, 1997).

The role of marketing in the industry

Research based companies have always relied on three pillars that were believed to ensure their long time success – strong R&D, aggressive defence of patents and powerful sales force as the dominant promotional tool (Moss & Schuiling, 2003). Sales push was preferred to marketing pull and consequently the sales force related costs represented approx. 50% of all marketing expenditure (James, 1992). It is firmly believed across the industry that although the most expensive, well educated and committed sales force is the most effective marketing vehicle when it comes to influencing the prescribing behaviour of physicians (Hermanek, 2002). It is also believed that there is a positive direct correlation between

← 1990s	1990s →
<ul style="list-style-type: none"> ■ The continuous demand for more and better health care and bottomless healthcare budgets ■ Demand fragmented among individual physicians who prescribe largely on the basis of efficacy and safety ■ Wholesalers and retail pharmacies are passive channel participants ■ Competition is built around innovation, new products with adequate levels of promotion provide the engine of growth 	<ul style="list-style-type: none"> ■ Insurers have realized that linkage between cost reduction policies and cost awareness practices can influence market size and growth as well as prices, margins and competition ■ Decision making power is moving upstream from individual prescribers towards insurers, hospitals, wholesalers and retailers ■ The growing personal interest in health care and increasing patient co-payment is driving a growth in patient decision making ■ Economic constraints, increasing customer sophistication and concentrated buying power are focusing decision making on value for money - price and added value rather than product technology are the key selection criteria

Figure 1. Change of buyers’ structure and power – adapted from EIU Special Report No R201

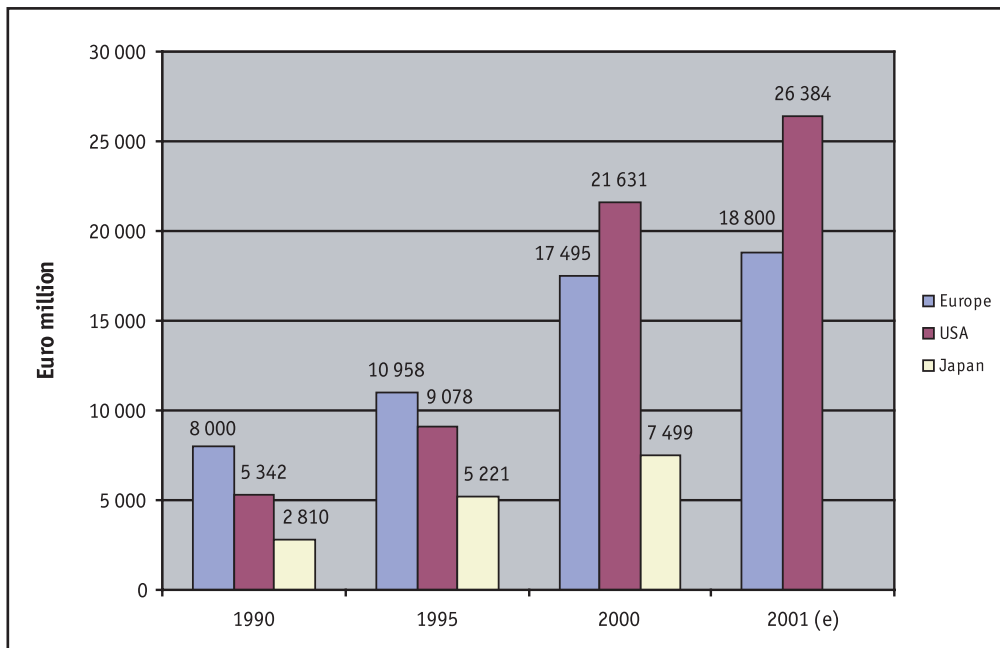


Figure 2. Pharmaceutical R&D expenditure in Europe, USA and Japan, 1990–2001 Source: EFPIA member associations, PhRMA, JPMA; e, estimate

the sales force size and market share of individual top companies (Coles et al., 2002). Therefore, increased competition has recently called for further sales force expansion – in the U.K. it is now estimated that there is one medical representative for every three GPs (Butler, 2002). Marketing has played inferior role in companies’ “promotional activities” and was seen to support the predominant sales activities. But it seems that sales efforts are reaching a certain saturation level as the industry consolidates and it will not be possible in the future to rely so much on merely increasing the numbers of sales representatives promoting a product (Moss & Schuiling, 2003). Likely consequent changes in business structure from traditional pharmaceutical business to 21st century business are shown in Figure 3 (Viitanen, 2004).

The role of marketing in the industry is and will always be different from consumer goods markets. In pharmaceutical business marketing works only around certain parts of the marketing mix – as Thomas Ebeling who came from Pepsi to Novartis stated

“...you cannot change the product as you can with soft drinks, you cannot change pricing too quickly and you cannot change the packaging easily”.

Since also distribution is usually standardized companies focus mainly on promotion – it is not rare that in medical marketing literature and also within pharmaceutical companies “communication mix” is called “marketing mix”, as if the other 3 Ps (product, price, place/distribution) didn’t exist (for example Bates & Bailey, 2003).

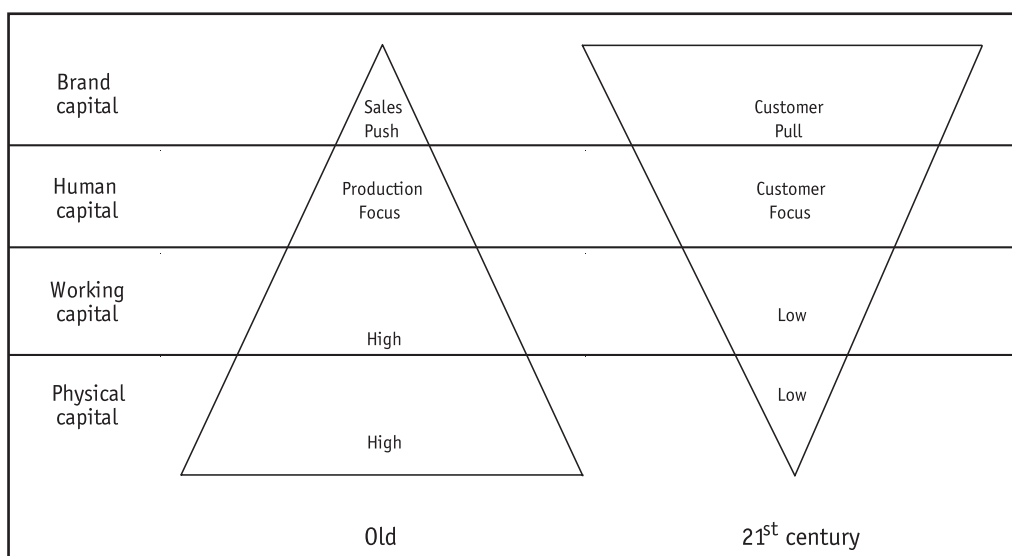


Figure 3. The transition of business structure from traditional business to 21st century business – adapted from Viitanen, 2004.

The role of medical marketing has historically been to prepare sales messages and detail aids that would enable the sales force to get the marketing messages across to targeted physicians. This was accompanied by traditional tools like advertising, publications in medical journals or opinion leaders' management.

As the landscape of the market changes (increased competition, less R&D effectiveness, complex and sophisticated customers) so the industry approach to marketing must change. Nowadays, more of both writers and practitioners regard it as a strategic function that should stem from the centre of the organization (Butler, 2002; Smith 2002 & 2003). Also the spectrum of pharmaceutical marketing activities is more influenced by consumer goods approaches. It is only recently that PR (PR week, 2003), direct to consumer programs (Pilling, 2001; Butler, 2002; The McKinsey Quarterly, 2000; Bolling, 2003) and also branding (Moss & Schuiling, 2003; EU Special Report No R2001; Moss, 2001; Blacket & Harisson, 2001; Knapp, 2001) have become popular topics among medical marketers.

Current position of branding in medical marketing mix

As Moss (Moss, 2001) states in his discussion about existence of pharmaceutical brands:

"The industry has been successful using product attributes and classical marketing techniques similar to other high-tech industries – the focus tends to be blockbuster products not brands"

He suggests that significant factor here is that short patent protection means brand building does not protect long-term profits in the same way that it does for consumer brands. Other factor cited by Moss is the product attribute trap – traditionally high-tech, industrial and pharmaceutical marketing has assumed that customers base their purchase decisions on selection of product attributes only. This assumption stems from the fact that in tightly regulated prescription medicine market, which represents around 90% of global pharmaceutical revenues (Blacket & Harrison, 2001), all information about products have been restricted to doctors and healthcare professionals only. Available research about factors that influence doctor's prescribing decisions has also indicated that product attributes, especially product's efficacy and side effects, are largely prevalent.

Therefore, branding concept has been largely applied to OTC drugs only and in prescription drugs market:

"...brands have been debilitated by the practice of referring to brands within and outside the company by their generic names, by using trademarks developed from the generic name of the compound which help to confuse brand recognition among physicians, pharmacists and patients, by the scant attention paid to brand packaging – the most visible part of the marketing mix – and by assigning the custody of their brand assets to product management rather than brand management"

(EIU Special Report No R201).

Although because of already described situation in the industry this practice is slowly changing, it is still prevalent that branding attempts focus more on functional than emotional or self-expressive brand values.

CONCEPT OF BRANDING

Brand and its functions

The earliest signs of branding were the medieval guilds' efforts to require craftspeople to put trademarks on their products to protect themselves and consumers against inferior quality. In the fine arts branding began with artists signing their works (Kotler, 2000).

According to Kotler, a brand is:

"...a name, term, sign, symbol, or design, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors."

This means that a brand is essentially a seller's promise (=brand promise) to deliver a specific set of features, benefits, and services consistently to the buyers. The ultimate advantage of a brand is that the seller is granted exclusive rights to the use of the brand name in perpetuity on the contrary of patents or copyrights, which have expiration dates.

According to Kotler a brand can convey up to six levels of meaning: attributes, benefits, values, culture, personality, users. This list comprises both rational and emotional meanings. The most enduring meanings of a brand are its values, culture, and personality (i.e. emotionals), which define the brand's essence (Kotler, 2000).

The function of branding is to create a distinction among entities that may satisfy a customer's need. This primary distinction is then the origin of a series of benefits for both the buyer and the seller (Berthon, Hulbert & Pitt, 1999):

1. Buyer's benefit – the function of reduction

- Brands help buyers identify specific products, thereby reducing search costs and assuring a buyer of a level of quality that subsequently may extend to new products
- By purchasing brands that symbolize status and prestige, the customer reduce the social and psychological risks associated with owning and using the "wrong" product

2. Seller's benefit – the function of facilitation

- Brands facilitate repeat purchases by enabling the customer to identify and re-identify products
- Brands facilitate the introduction of new products
- Brands facilitate promotional efforts
- Brands facilitate premium pricing
- Brands facilitate market segmentation
- Brands facilitate brand loyalty

Basic decision about branding is whether "to brand or not to brand". Branding gives the seller handful of benefits but it includes significant costs. Selling non-branded

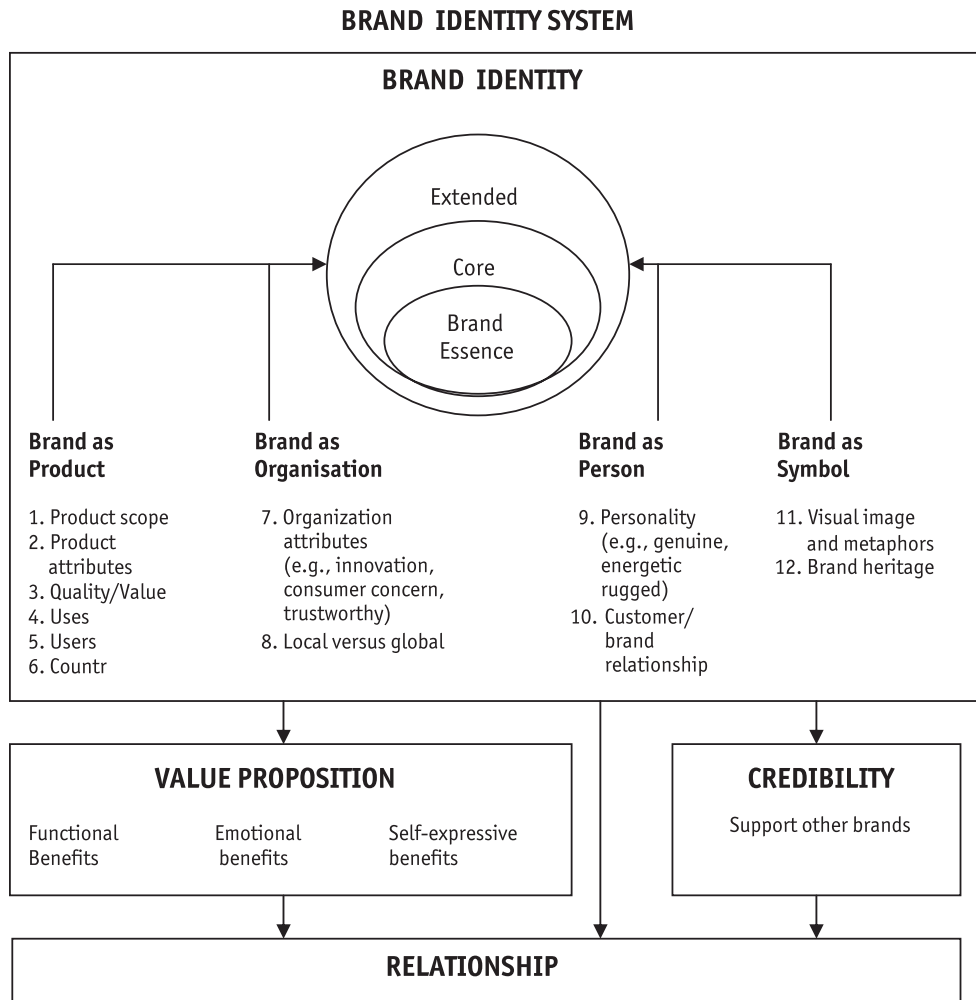


Figure 4. Brand Identity System (Aaker, 2000)

products (generics) makes sense when a producer follows cost leadership as its business strategy. There have been industries where branding was thought to bring little competitive advantage (commodities, industrial and high-tech products, information intensive products, e.g., pharmaceuticals). But with growing maturity of these industries many incumbents follow branding concept as an option to create competitive advantage – there have been, for example, attempts to brand electricity (Schimmler, 1998), health services (Koff, 2002) or countries (Hamilton, 2000).

Brand identity

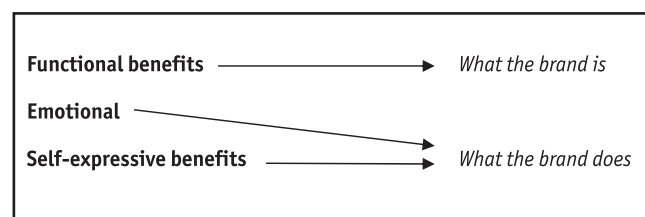
There are several concepts and models for brand strategy planning and execution. The most comprehensive is Aaker's Brand identity. The structure of Brand identity system is summarized in Figure 4.

Brand identity is a set of brand associations that the brand strategist aspires to create and maintain. There are twelve categories of brand identity elements organized around four perspectives:

- Brand as product
- Brand as organization
- Brand as person
- Brand as symbol

Brand identity structure includes a core identity, an extended identity and a brand essence. While the **extended brand identity** describes the brand's aspiration widely in six to twelve dimensions, the **core identity** comprises only the most important elements. Therefore, it creates a focus for both the customer and the organization – if customers perceive the brand according to the core identity, the battle is won. **Brand essence** is then a single thought that captures the soul of the brand and one of its key functions is to communicate and energize people inside the organization (Aaker, 2000).

Externally, brand identity is communicated as a **value proposition** that comprise three types of benefits divided into two categories:



In planning and building brand identity companies should avoid 8 typical mistakes:

- Avoid a limited brand perspective
 - a. Tagline trap – the belief that the brand identity should be captured in a three word phrase
 - b. Product-attribute trap – the brand is viewed as simply a set of attributes delivering functional benefits. There are many authors who believe that the best brands differentiate on emotions (Hiebert, 2001; Travis, 2000; Green, 2003; Gobé, 2003).
- Link the brand to compelling functional benefits whenever possible
- Use constructs that fit and help – ignore others
- Generate deep customer insight
- Understand competitors
- Allow multiple brand identities
- Make the brand identity drive the execution
- Elaborate the brand identity

Brand value measurement – concept of Brand Equity

Brand equity, which is agreed (at least as a term) as the measure of brand value, results from marketing efforts and plays an important role in the assessment of marketing performance (Ambler, 1997). It is proved that higher brand equity generates significantly higher preferences and purchase intentions (Cobb-Walgren, Ruble & Donthu, 1995).

There are two interpretations to what brand equity is – additive and inclusive (Abela, 2002):

- **Additive** interpretation of a brand takes product and brand as separate – brand is a mark that is added to a product.

If total value of brand A to consumer is x, then:

$$\text{Value of brand equity of A} = x - (\text{value of all the measurable benefits of A})$$

- **Inclusive** interpretation portrays product and brand as combined – product is included in the brand.

If total value of brand A to consumer is x, then:

$$\text{Value of brand equity of A} = x$$

Brand equity is an expression of brand's present and future value in terms of its business potential. Therefore, it would be extremely useful to have a widely accepted model of its measurement. Unfortunately, this is far from reality. There are many approaches to brand equity measurement which fall into subgroups of financial, customer-related or complex techniques.

There are many opportunities how to measure brand value financially. These are for example discounted cash flows, earning multiple, comparable market values, brand contribution, estimated royalty income, contribution of brand over a non-branded product, historic cost or replacement cost, premium pricing, stock market valuation, potential value of brands to an acquiring firm or momentum accounting (Ambler & Styles, 1995).

Consumer related techniques fall into two groups – measures involving consumer perceptions (awareness, brand associations, perceived loyalty) and measures involving consumer behaviour (brand loyalty, willingness to pay a high price). Both types of consumer related techniques are involved in Aaker's model of brand equity (Figure 5).

Since neither financial nor consumer related approach give the complete picture, there are several methods that combine advantages of both financial and consumer related techniques. One of the most comprehensive approaches is offered by Interbrand Group in conjunction with Financial world (Motameni & Shahrokhi, 1998). According to this model the two components of the valuation of a brand are earnings attributed to the brand and brand strength multiple, where brand strength takes into account seven factors: market leadership, brand stability, current market prospect, brand extension possibilities, internationalization potential, adaptation to time, brand support and legal protection.

All of the above presented techniques measure brand equity as a value that the brand represents for owners, investors or consumers. But brand equity can also be seen as a function of brand-consumer relationships. In the centre of this relationship is trust as a key relational variable that brings together three diverse areas of scholarship – brands, relationship marketing and trust (Ambler, 1997).

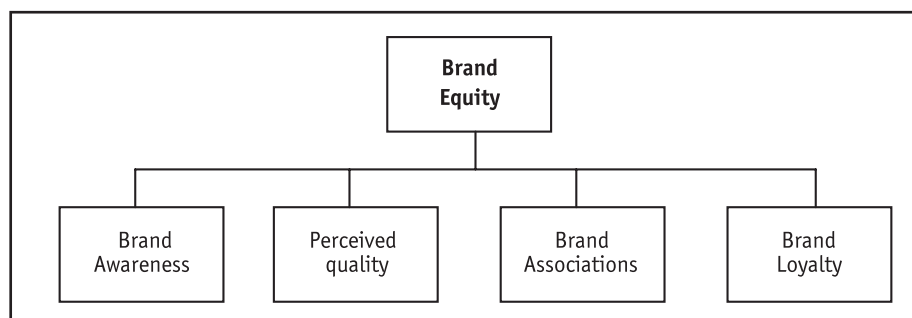


Figure 5. Consumer related model of brand equity (Aaker, 2000).

BRANDING IN PHARMACEUTICAL INDUSTRY

"...marketing is no longer a mere component of the pharmaceutical business process where profits were the natural reward for scientific and management skills. Rather, marketing is now the central business philosophy as success can no longer be guaranteed by pursuing old rules and approaches. Branding improves the effectiveness and efficiency of marketing by encouraging customer loyalty, enhancing price and margin, and providing opportunities for brand extension."

The Economist Intelligence Unit
Special Report No R201, 1992

The Economist Intelligence Unit Special Report on pharmaceutical industry from 1992 first recognized branding as an important source of competitive advantage for pharmaceuticals. It has seen pharmaceutical brands as product attributes together with names, packaging, distribution and promotion. The role of brands in the industry has been identified as:

1. Prevent commoditization

Unlike patents, brands have no finite life. Therefore, brands, unlike mere products, can bring profits even after patent expiration.

2. Differentiation

The increasing clinical similarity between many new products has created perceptions among customers of product parity. This has intensified buyer switching and increased role of price in the buying decision. Brands enhance the ability of prescribers, buyers and users to interpret and process information, gain confidence and provide the rationale in their decisions.

3. Enhance payback

Brand can widen the window of opportunity in terms of time and hence increase the payback related to the branded product.

Prevailing reason for branding has been largely seen as defence against generics. Barbara Sudovar (Sudovar in Murphy, 1992) states that as long as generics are sold, the development of trademarks for new pharmaceutical products will be one of the most important tasks facing the industry. Nevertheless, probably no drug brand is so powerful as to protect the brand against the persuasiveness of a substantially lower priced generic product (EIU Special Report No R201, 1992). Branding in the pharmaceutical industry seems to be also important because it could represent a source of relationship with the customer, competitive differentiation, crossing the borders of countries and markets, influencing behaviour or attitudes and customer loyalty (Blacket and Harrison, 2001).

It is clear that the ways how the business has been conducted in the past are somehow exhausted. Pharmaceutical business is an environment, where (Moss & Schuiling, 2003):

- R&D efficiency and effectiveness is decreasing
- Risk coming from possible loss of revenues from blockbuster products after patent expiry is increasing
- Sales efforts are reaching a saturation level

Pharmaceutical business has been sceptic about the added value of branding for the industry. Nevertheless, recently pharmaceutical marketers started to explore that some strategies and tactics from consumer goods markets can be successfully used in pharmaceutical business. They started to realize that both physicians and patients are susceptible to branding activities when they are supported by clinical evidence (Pilling, 2000).

There are more and more signs that pharmaceutical product brand exists. For example it is clear that top selling products don't have to be groundbreaking drugs from the scientific point of view (Figure 6). Hence similarly as its consumer goods counterparts the industry needs to move from product management to brand management.

No.	Brand	FDA Science Rating	
1	Zocor	C	
2	Losec/Prilosec	B	
3	Prozac	B	A – drug offers important therapeutic gains over existing therapies
4	Vasotec	B	B – drug offers modest therapeutic gains over existing therapies
5	Zantac	C	
6	Norvasc	C	
7	Claritin	C	
8	Augmentin	B	C – drug offers little or no therapeutic gains over existing therapies
9	Zoloft	C	
10	Paxil/Seroxat	C	

Figure 6. Rating the Pharmaceutical Hit Parade (Corstjens & Carpenter)

HOW TO DEVELOP A PHARMACEUTICAL BRAND?

Although we can find many similarities between pharmaceuticals and consumer goods there are two key differences between them (Moss & Schuiling, 2003):

1. Brand name cannot be transferred to another molecule following patent expiry
2. Doctors and pharmacists represent an additional layer between the patient and the company

Similarly as in consumer goods markets pharmaceutical brand should be developed through building of strong brand identity. This means (Moss, 2001):

1. Development of the brand's strategy by identifying the brand identity
2. Development of marketing programs fully coherent with the brand's identity

3. Regular monitoring the brand image to verify if there are no differences between both the brand image and set brand identity

Building a robust brand strategy is important and rather difficult task. It involves a series of stages, which include (Blackett & Harrison, 2001) :

1. **Brand positioning** – unique, hard to copy position in the market
2. **Brand personality** – expresses the emotional appeal of the brand
3. **Brand values** – functional, expressive (emotional) and central (what the brand and I share at a fundamental level) values (see Figure 7)
4. **Unique attributes of the brand that support the values** – identifying which functional and emotional elements of the brand can support its core values and what are the reasons to believe them
5. **How the brand appears to its audience** – brand name, packaging design and advertising
6. **Internal commitment** – creating a culture where the importance of branding is understood as critical.

Functional values	What the brand does for a patient, i.e.: - <i>efficacy</i> - <i>safety</i> - <i>convenience</i> - <i>cost-effectiveness</i>
Expressive values	What the brand says about the user. e.g. <i>sophisticated professional</i>
Central values	What the brand and the user share at a fundamental level, e.g. <i>low risk</i> .

Figure 7. Brand values (Blackett & Harrison, 2001)

In attempts to brand their products pharmaceutical companies often get caught in the product attribute trap, i.e. they don't find ways how to move from rational to emotional product benefits. To avoid this Moss (2001) recommends to substitute classical pharmaceutical marketing with brand management and offers Aaker's Product/Brand model modified for pharmaceutical industry (Figure 8).

When building a pharmaceutical brand it is important to create a solid functional anchor but then move forward and work also on expressive and central values that characterize the customer/brand relationship (Blackett & Harrison, 2001).

Corporate brand

Most pharmaceutical companies have yet to firmly establish their corporate brands (CoreBrand 2001). Based on survey of senior business executives 34 of the largest publicly traded companies were ranked and divided into four tiers. The study has shown that the strongest brands in the industry are diversified consumer product giants such as Johnson & Johnson or Procter & Gamble, which scored ahead of purely pharmaceutical-focused companies like Pfizer, Eli Lilly or Merck. This is important finding since corporate brand seems to play a significant role in the pharmaceutical market place. The value of corporate brand seems to be enhanced by ethical performance, sound values, and high credibility as well as by quality of products and research. Importantly, connections between a product brand and a company brand seem to be stronger than in consumer goods sector. This fact is important for new product introductions. The company brand seems to reduce the threshold for trial by providing credibility and quality associations to the new product (Viitanen, 2004).



Figure 8. Product and brand in the pharmaceutical industry (Moss, 2001)

Factors influencing prescribing habits and behaviour

Demand for pharmaceuticals is driven by both physicians and patients. Albeit recent developments in the marketplace, medical practitioners still play in many ways simultaneously roles of users, influencers, gatekeepers and deciders while patients perform the role of buyers and users (Abratt & Lanteigne, 2000). The role of patients in the treatment decision has been and in spite of recent patients' emancipation in many ways remains (with the exception of the USA) secondary.

Physicians seem to be influenced by two general areas of endeavour – marketing factors (sales representatives, advertising, price of the product to the patient, trade shows & symposia) and professional factors (journals, prior experience and education, opinion leaders' influence, recommendations by colleagues, demands by patients). Namely the role of sales representatives seems to be very important (Abratt & Lanteigne, 2000). One of the main sources of influence is the medical practitioners' own training and clinical experience. Also recommendations by colleagues in informal discussions were found to be very important influence factor (Abratt & Lanteigne, 2000). Conducted studies suggest that physicians are more focused on functional product benefits and emphasized efficacy and safety as the most influential ones (Viitanen, 2004; White & Johnson, 2001).

FIELD RESEARCH

Primary research methodology

Results of studies concerned with factors influencing physicians' prescribing behaviour reviewed in literature section of this paper were based mostly on quantitative data collected through questionnaires (Abratt & Lanteigne, 2000; Viitanen, 2004; White & Johnson, 2001). While questionnaires are seen to be very useful in collection and analysis of data from large sample of respondents (Bell, Bush, Fox, Goodey & Goulding, 1984) they also enable respondents' self-stylization, which, from author's marketing experience, seems to be substantial among healthcare professionals. Therefore face-to-face semi-structured interviews were used as a research tool in this primary research. Interviews enabled the author not only avoid this self-stylization but also search for causes or explanations underlying superficial answers.

The research has been done by the author on the "opportunity" sample of ten Czech psychiatrists. Sample details are shown in following table (Figure 9).

The aim of the interviews has been to explore the impact of potential influencers on doctors' attitudes and beliefs toward medications as well as the impact on their prescribing behaviour. Interview check list was built in a way to distinguish between functional, emotional and self-expressive benefits that drive physicians' positions/behaviours. Prior to field work draft interview check list was tested on a pilot sample of five psychiatrists. The pilot

Number of respondents	10
Specialization	Psychiatry
Location	Prague
Inpatient/outpatient	1/9
Men/women	3/7

Figure 9. Semi-structured interviews – sample characteristics

research induced significant changes in the check list aimed to enhance the contribution of primary research to testing of the primary hypothesis. For example, it was observed that physicians' perceptions are formed differently in three different stages of product's life cycle: pre-launch stage, launch + early post-launch stage and late post-launch stage. Therefore, respondents were asked separately about these three stages.

The interviewer asked questions and waited for proactive response, then he asked about other possible influencers from the check list that had not been stated proactively. Reasoning and explanations were facilitated. Detailed notes were written during each interview, these notes served as a source for analysis.

There are many potential sources of bias for interviews (Sharp & Howard, 1996) among which sample, respondent and interviewer bias could play role in this primary research.

Potential sample bias (drawing decisions from inappropriate sample) and respondent bias (answers influenced by the person of interviewer) have been tackled by sample selection.

Although the sample is an "opportunity" type of sample, it was built to reflect the structure of real psychiatric population. None of respondents had met the interviewer before and the interviewer introduced himself as a "a person who is running a research project".

It is practically impossible to exclude interviewer type of bias (questioning leads the respondent in certain direction), however, the interviewer attempted to reduce its risk by testing the interview check-list in a pilot sample and also by consciously minimizing it during the interviews.

The analysis was done from interview notes and aimed to identify the drivers of physicians' attitudes toward medications and consequent prescribing behaviour. Because the interviews were structured and answers were repetitive, content analysis (Sharp & Howard, 1996) was not necessary. Although this research was qualitative by its nature simple quantitative analysis was also performed to reveal more about potential trends. Drivers were numerically rated according to importance assigned to them by respondents (from 5 points for most important to 1 point for least important), rating of pro-actively mentioned drivers was doubled. Scores for drivers were counted as a sum of individual ratings. Although quantitative analysis was found useful it only shows trends and its results can't be taken as significant.

Fieldwork results

Primary research aimed to answer following questions:

- What influences physician's opinion on the product and his/her prescribing behaviour?
- Do physicians trust or distrust some medications and why?
- How do physicians decide between generic products (= products with equivalent active substance)?
- How important is pharmaceutical brand for patients?

Although the research is predominantly qualitative, following simple quantitative analysis shows clear trends for drivers influencing physicians' opinion and prescribing behaviour. Colours in following pictures show importance of individual factors as follows:



What influences physician's opinion on the product and prescribing behaviour?

Quantitative analysis of answers on the first group of questions can be seen in Figure 10. These questions aimed to explain what influences respondents' opinion and likely future prescribing behaviour in three separate phases of product's life cycle: pre-launch, launch & early post-launch and late post-launch.

Drivers that have impact on psychiatrists' opinions and likely future prescription behaviour clearly shift in time:

1. Before physicians have had any personal practical experience with the product their opinion is formed by information they get. They don't make clear difference between individual sources of information (literature, congresses, information from company's representative). Majority of respondents stated that they welcome producer's representatives calling on them before product launch. They said that "representative's visit enables the first contact with

Question	Answer	Score
What influences your opinion on the product and future prescribing behaviour prior to the product's arrival to the market?	Information from producer	72
	Books and journals	71
	Congresses, seminars, workshops	74
	Colleagues' opinion	26
	Local prescription habits	0
	Clinical experience	0
What influences your opinion on the product and your prescribing behaviour early (<1/2 year) after the product's arrival to the market?	Information from producer	44
	Books and journals	24
	Congresses, seminars, workshops	39
	Colleagues' opinion	39
	Local prescription habits	5
	Clinical experience	98
What influences your opinion on the product and your prescribing behaviour lately (>1/2 year) after the product's arrival to the market?	Information from producer	39
	Books and journals	32
	Congresses, seminars, workshops	31
	Colleagues' opinion	46
	Local prescription habits	16
	Clinical experience	100

Figure 10. Importance of opinion and prescription drivers in pre-launch, launch & early post-launch and late post-launch phase of product's life cycle

product and company and it could be very important". Interestingly, some are influenced by their colleagues who could not have had an opportunity to try the product as well.

2. Since launch respondents seem to be navigated by their own clinical experience. Even in time they have little, anecdotal experience they claim to believe more in it than in results of large randomised double-blind trials. They stated that "information create expectations that are or are not matched by their real clinical experience". Some of them emphasized that "cumulative negative experience in the early usage phase can harm the product in their eyes significantly". Importance of typical information channels (company, literature, congresses) decreased, results suggest that direct information from producer could be preferred to literature and congresses. Influence of colleagues was seen as more important than in the pre-launch phase. Local prescribing habits were seen as unimportant.
3. In late post-launch phase respondents insisted that they are directed predominantly by their own clinical experience. Vast majority agreed that the influence of company, literature and congresses is low – from these sources they regarded sales representatives as somehow influential because "they remind them the product", "suggest ways how to use it" and "inform them about new indications". Importance of colleagues' opinion further increased while local prescribing habits were still seen as of little importance.

Do physicians trust or distrust some medications and why?

Next table (Figure 11) analyses answers on questions concerned with respondents' trust or distrust in pharmaceuticals.

Results suggest that trust and distrust are perceived slightly differently:

1. All interviewed psychiatrists agreed that they trust in some treatments. Dominant cause of this trust was seen in their clinical experience. It was followed by open & trustworthy communication from producer – this was described as "trustworthy representative" or "willingness to inform about product's liabilities". While respondents' colleagues were able to influence their opinion and prescribing behaviour, their propensity to influence trust seemed to be lower. Some respondents described trust as a result of positive correlation of the three above mentioned factors: they agreed that trust is developed from open and trustworthy communication from producer, which creates expectations that are proved by clinical experience and reassured by their colleagues' opinion. Interviewed doctors widely agreed that in day-to-day practice they many times prescribe drugs that they trust without thinking about their functional benefits, i.e. on intuitive and emotional level. Well treated patients (and families) who believe

his/her doctor were then seen as recognition of them as professionals.

2. On the contrary of trust, 30% of respondents claimed that they don't distrust any product. They explained, that each product has its place in their practice and although it could fail in some cases they usually sooner or later find ways how to use it. For these physicians negative experience can limit product's potential but it won't make them distrust. For the others major reason of potential distrust was negative clinical experience followed by misleading communication from producer. Some mentioned the fact that they have negative opinion on products, which they are pushed to prescribe – two respondents even stated that "company's representative can't help the product much but definitely can hurt it". Respondents didn't like companies' representatives overpromise or hide product's liabilities. Colleagues were not seen capable to create distrust and respondents felt no correlation between above mentioned factors.

How do physicians decide between generic products?

Next question aimed to examine the way respondents decide about generics. Results are shown in Figure 12.

Most respondents preferred originals to generic products. Some of them considered price while their clinical experience (they saw all generics as identical) and producer did not seem to play an important role in decision making process. There were many different reasons for prescribing generics (63p. for "Others"), each of them mentioned once. The reasons were similar to those in consumer goods markets: first to market, easy name, friendly sales representative, by chance, conservativeness, etc.

How important is pharmaceutical brand for patients?

Last part of the interview focused on patients' attitudes toward pharmaceutical brands. Results are show in the next table (Figure 13).

Majority of respondents believed that the brand is important for patients. They said that they must explain properly whenever they want to switch the medication that patients trust and that in some cases switch can be difficult even after proper explanation.

DISCUSSION

What influences physician's opinion on product and their prescribing behaviour?

It has been explored during interview check-list testing and proved by conducted interviews that physicians are influenced differently in different phases of "product-customer life-cycle". Product-customer life cycle (PCLC) is a model formulated by the author of this paper. While it stems from classical product life cycle model it sees the product's life through eyes of its customers (see Figure 14).

Results of presented research are coherent with existing literature (Abratt & Lanteigne, 2000; White & Johnson, 2001)), but go further and suggest that physicians opinion and prescribing behaviour is influenced differently before product's market arrival (Pre-launch phase of PCLC) and after its launch (Experimentation and Familiarity phases of PCLC).

Pre-launch phase

During pre-launch phase physicians process information from external sources without ability to test the product in their clinical practice. According to research results relative values of information from producer (sales representatives, mailings, etc.) and from "independent sources" (books, journals, congresses, etc.) seem to be seen as equivalent. Some physicians feel to be influenced by their colleagues' opinion even in time when nobody

Question	Answer	Score
Are there pharmaceuticals you trust? For what reason?	Clinical experience	100
	Open, trustworthy communication with producer	36
	Colleagues' opinion	15
	Positive correlation of the three above	25
	Any of the three above	0
	No, I don't trust any	0
Are there pharmaceuticals you distrust? For what reason?	Clinical experience	64
	Misleading communication from producer	30
	Colleagues' opinion	15
	Presence of all of the three above	0
	Any of the three above	0
	No, I don't distrust any	30

Figure 11. Expressed trust and distrust in pharmaceuticals

Question	Answer	Score
How do you decide between generics?	Price	25
	Clinical experience	18
	Producer	15
	Original x generic	52
	Other	63

Figure 12. Expressed drivers of generics' prescription

Question	Answer	Score
Do patients insist on medication they regard good? How difficult is to switch the medication (e.g. for generic)?	It is tough to switch the medication even after explanation	41
	If I want to switch the medication I must explain it properly	69
	It is quite easy to switch the medication	3

Figure 13. Importance of pharmaceutical brands for patients

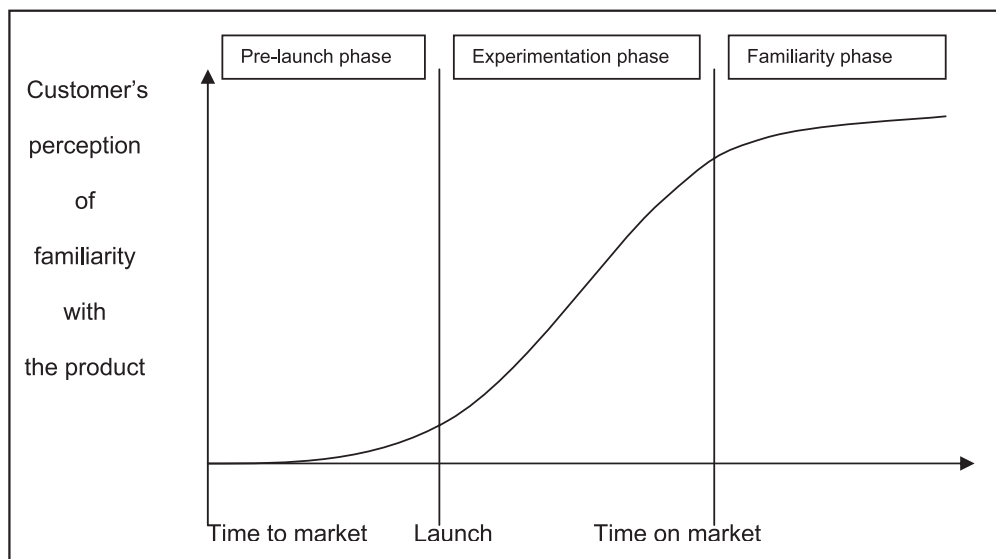


Figure 14. Product-customer life cycle model for pharmaceuticals

has any clinical experience – probably because they see them as more knowledgeable and with better access to up-to-date information. Identification with “professional group” might play a role here. According to respondents’ answers all information they get before they have the chance to test the product themselves create expectations (=brand promise – Knapp, 2001; Campbell, 2002) that are or are not proved by their own clinical experience after the product’s market arrival.

Experimentation phase

As soon as the product is available physicians seem to develop their opinion and their prescribing habits mainly on their own clinical experience. Information from producer as well as from independent sources seem to be less influential while impact of colleagues’ opinion slightly increases. It is important that physicians test products in their clinical practice based on recommendations given by producer. Therefore, it is of key importance that pharmaceutical marketers position pharmaceuticals clearly and relevantly and doing so they avoid falling into three potential traps:

1. Position confusion trap

As companies attempt to differentiate their products they often stress additional benefits that make the product unique. Strong accent on product’s additional benefits can make physicians unsure about what should be the product used for.

2. Position relevance trap

To increase the product’s potential pharmaceutical marketers often aim to maximise the number of targeted patients in the market. They tend to focus on patient segments with biggest business potential or to add more patient segments without thorough analysis of product’s properties on one side and patients’ and doctors’ needs on the other. Bad experience with unsuitable patients can make doctors not to use the product for patients that could benefit from it much more.

3. Overpromise trap

Overpromise, i.e. create expectations higher than expected treatment outcomes, is another potential source of customer’s distrust in the product. Relevant expectations that match with the clinical experience gained in the experimentation phase on the other side seem to lead to repetitive usage and smooth transition from Experimentation to Familiarity phase.

Since clinical experience gained in experimentation phase seems to be decisive for physicians’ attitudes towards the product throughout its market presence it is of pivotal importance to position the product well and create relevant expectations in both Pre-launch and Experimentation phases. When differentiating the brand through brand promise development (Knapp 2001) medical marketers should link the brand clearly to compelling and relevant functional benefits and ignore confusing constructs (compare with “8 typical mistakes” – Aaker, 2000). Mistakes made here seem to be hard to repair later. The task difficulty is enhanced by the fact that marketing messages are communicated mostly by sales representatives. Transfer of messages between marketing, sales teams and customers is a process accompanied always to some extent by leakage of messages in the communication chain (Figure 15). Thorough message development and transfer management is therefore of key importance for effective pharmaceutical marketing communication (Mackintosh, 2004)

Familiarity phase

Impact of clinical experience as the major driver of physicians’ opinion and prescribing behaviour seems to grow in time. During research all interviewed doctors pro-actively stated that in the long term they navigate themselves mainly on their own experience. Long enough positive experience was seen as a reason for their trust in some pharmaceuticals. Impact of colleagues further increases while importance of information channels have not changed much from Experimentation phase. Interestingly, doctors did not feel much influenced by so called local prescribing habits. Since this finding doesn’t

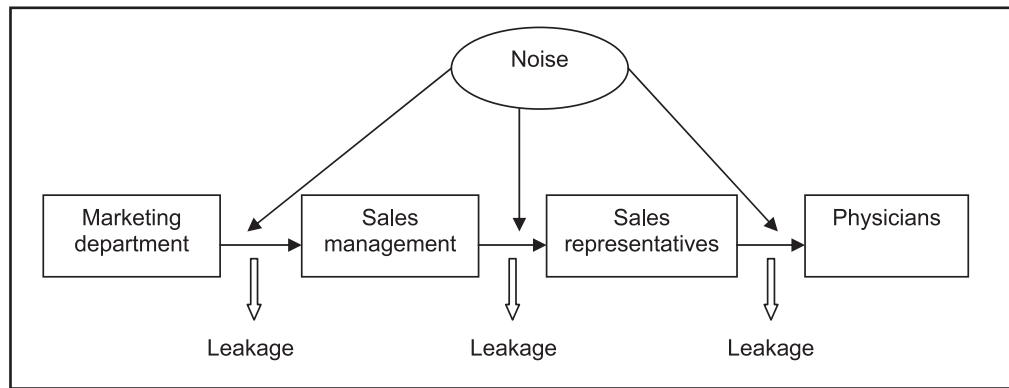


Figure 15. Potential message leakage in pharmaceutical marketing communication chain.

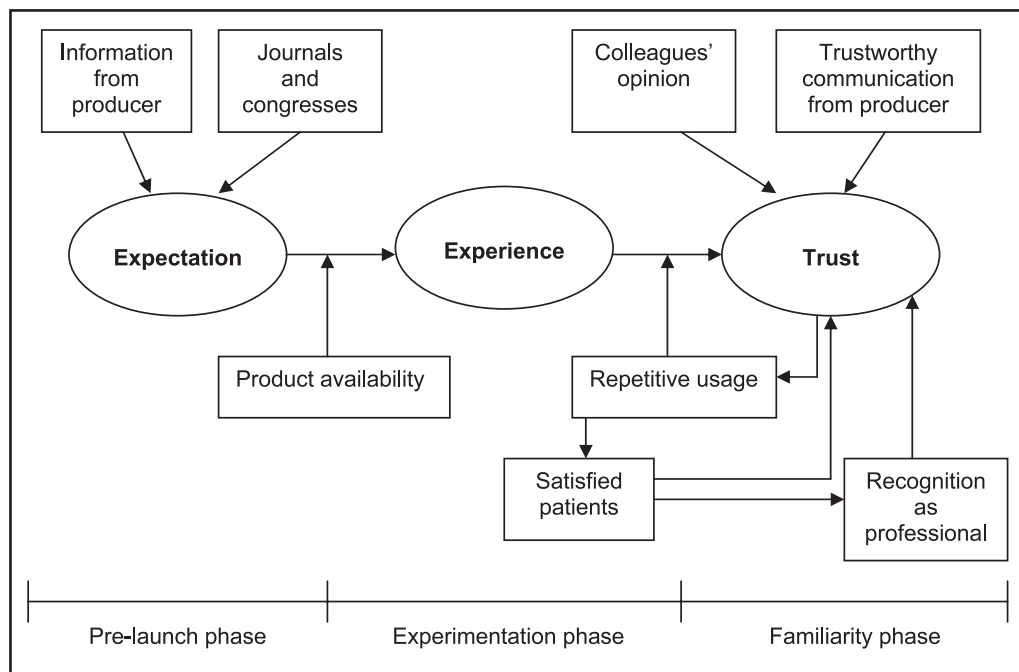


Figure 16. Development of trust in pharmaceutical products

correspond fully with marketing practice (sales patterns are regionally very different – author's experience), it requires further exploration. Possible explanation could lie in respondents' self stylization (they don't want to be seen as influenced by crowd) or in impact of other factors on regional prescribing habits.

Do physicians trust or distrust some medications and why?

In the light of already discussed results it is no surprise that trust or distrust develops from positive or negative clinical experience. While also important other factors seem to play a supportive role.

Trust is likely to lie in the centre of brand-customer relationship (Ambler, 1997), pharmaceutical companies should therefore be aware that their trustworthiness can play significant role in trust development (Viitanen, 2004). In words of respondents "they should not over-promise or hide product liabilities". This indicates that the customer/product relationship for pharmaceuticals involves both ways interaction (Blackston, 2000).

It has been explored by Viitanen (2004) that physicians have predominantly functional needs towards the products. In his work pharmaceutical brands associations were found mostly product related and there was rather limited amount of symbolic associations reported in his research. Results of qualitative primary research between psychiatrists in the Czech Republic suggest the opposite. Diagram in Figure 16 shows possible explanation of how trust in pharmaceuticals is developed and what influence its development.

It can be inferred that trust develops mostly on product benefits of emotional (trustworthy communication, satisfied patients) and self-expressive (recognition as professional) nature. Trust seems to evolve from repetitive product usage accompanied by positive experience – it can't be transferred on physicians directly from producer. Marketers in pharmaceutical industry can positively influence trust development before and at launch by raising relevant expectations and giving physicians suitable guidance on product usage. Positive experience gained in this phase is decisive for product usage in

broader spectrum of patients/indications. Later change of doctors' perceptions seems to be harder to achieve.

How do physicians decide between generic products?

Reasons why respondents chose between generics were more fragmented and some of them were similar to reasons for consumer goods purchase (e.g. easy name, friendly sales representative, conservativeness). This is understandable because clinical profiles of generics should be the same.

Significant part of respondents stated that when choosing from compounds with identical active substance they preferred original compounds to generics. Reasons are to be found in non-functional brand benefits (mainly trust) and also probably in corporate brand recognition (research based vers. generic companies).

Price doesn't seem to play significant role even in generic prescriptions. This fact enables us to think that pharmaceuticals are not price sensitive product category (Abratt & Lanteigne, 2000).

How important is pharmaceutical brand for patients?

Vast majority of respondents see brand as important for their patients. They say that they must explain the reasons to switch a patient to another drug or that it is tough to switch medication even after relevant explanation.

Direct to consumer advertising has been already enabled by FDA's decision in the USA. With expected increase of patient's importance in treatment decisions (White & Johnson, 2001; Pilling 2001) patient-brand relationship can have significant impact on pharmaceutical companies' baselines.

CONCLUSIONS AND RECOMMENDATIONS

Primary research conducted among Czech psychiatrists has shown that physicians are not influenced by functional product benefits only. This research has been qualitative by nature and as such it answered the question in central hypothesis by creation of another hypothesis.

It suggests that factors influencing physicians' perceptions and prescribing behaviour are probably different during different phases of product life cycle. Based on this finding concept of "Customer/product life cycle" is formulated. According to this model physicians' attitudes toward medications and consequent prescribing behaviour are developed during three phases. During *Pre-launch phase* physicians get plenty of information and they create certain level of expectations. Based on these expectations physicians use the product in *Experimentation phase* and this first anecdotal experience can be very important for their future prescribing behaviour. It seems to be in this phase when "brand promise" delivered in *Pre-launch phase* is fulfilled or not. In the case that clinical experience matches the expectations physicians start to use the product repeatedly and go into *Familiarity phase*. Through long-term positive experience trust

in pharmaceuticals seems to develop. Emotional enough itself trust is shown to be influenced by other emotional (satisfied patients, trustworthy communication from producer) and self-expressive (recognition as professional) benefits associated with the product.

Customer/product life cycle model theory formulated here suggests that pharmaceutical brand could convey both functional and emotional/self-expressive sets of benefits, i.e. that pharmaceutical brand is more than product and its functional characteristics. Nevertheless, non-functional pharmaceutical brand is likely to develop differently than the same of consumer goods products – it seems to be built predominantly on long-term positive experience. Marketing role in this process should lie in finding relevant product position and building brand identity compliant with real product capabilities. Resulting marketing communication should create relevant expectations and underpin physicians' clinical experience and in these ways help to create the non-functional brand through repetitive usage and experience.

These findings have come out from qualitative research and they need to be proved by collection of quantitative data. Nevertheless, this research must be organized differently than existing quantitative studies (White & Johnson, 2001; Abratt & Lanteigne, 2000; Viitanen, 2004) that focus on functional product benefits mainly and don't avoid possible respondents' self-stylization. Development of better definition of pharmaceutical brand and its measurement should focus the future research in the right direction.

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