

**ISTANBUL TECHNICAL UNIVERSITY ★ GRADUATE SCHOOL OF ARTS AND
SOCIAL SCIENCES**

**THE EFFECTS OF MARKETING ACTIVITIES ON COMPANY IMAGE: AN
APPLICATION IN SPECIALTY PHARMACEUTICAL INDUSTRY**

M.B.A. THESIS

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Department of Business and Administration

Business and Administration Master Programme

JUNE 2019

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İSTANBUL TEKNİK ÜNİVERSİTESİ ★ SOSYAL BİLİMLER ENSTİTÜSÜ

**İLAÇ FİRMALARININ PAZARLAMA FAALİYETLERİNİN FİRMA İMAJİ
ÜZERİNE ETKİLERİ: UZMANLIK ÜRÜNLERİ ÖZELİNDE BİR UYGULAMA**

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To my family and my beloved ones,

FOREWORD

The pharmaceutical industry plays a critical role in our lives. Continuing technology and investments initiates new treatments to incurable diseases for the patients. Getting the right treatment and drugs is a multifaceted process in which the physicians are the last decision maker. It puts them in the centre of the pharmaceutical industry and the companies direct their main marketing muscles to physicians. Based on this unique structure of the industry, this study aims to clarify the mechanism between the marketing efforts of a company and its impact on the company image in physicians' mind.

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ABBREVIATIONS

CME	: Continues Medical Education
HCP	: Healthcare Professionals
PSR	: Pharmaceutical Sales Representatives

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THE EFFECTS OF MARKETING ACTIVITIES ON COMPANY IMAGE: AN APPLICATION IN SPECIALITY PHARMACEUTICAL INDUSTRY

SUMMARY

The purpose of this study to understand the mechanisms that shape the company image in physicians mind through marketing activities of pharmaceutical companies.

The pharmaceutical sector is a very dynamic environment that changes with an unstoppable pace especially exploiting technology and innovation. Traditional drugs lose their share in the market while speciality pharmaceuticals increase as a new trend. Specialty pharmaceuticals include high-technology drugs for smaller populations and serve specialty market needs a different type of approach in terms of marketing activities. While the competition heating up among companies in the specialty market, company image in physicians' mind becomes more critical than ever.

Previous studies show that firms can not only depend on their products as an effective value and differentiation factor. They are conscient that idiosyncratic and reliable attraction can be provided by a positive corporate image. In that case, firm interactions with physicians through sales personnel come into prominence at forming the company image.

The healthcare dynamics, regulations and stakeholders make the pharmaceutical industry completely unique as compared to other sectors. Pharmaceutical sales representatives and personal support of firms are primary marketing channels to have an impact on physicians' perceptions. For satisfying the demand of the specialty pharmaceutical market, sales force needs to be more and more educated about the market, product communication and time management. Moreover, personal support of firms has to target unmet needs of physicians.

Based on previous literature on the pharmaceutical industry and sales force influence on company image, a statistical model has been established to explain the effects of company and sales force activities on a favourable company image.

Using a quantitative approach, data from 191 physicians is obtained via personal interviews. Results show that sales force performance, personal support of a firm and visit frequency of pharmaceutical sales representatives significantly improve company image.

İLAÇ FİRMALARININ PAZARLAMA FAALİYETLERİNİN FİRMA İMAJİ ÜZERİNE ETKİLERİ: UZMANLIK ÜRÜNLERİ ÖZELİNDE BİR UYGULAMA

ÖZET

Bu çalışmanın amacı, pazarlama faaliyetlerinin etkisiyle hekimlerin zihinlerinde şekillenen firma imajının çalışma mekanizmalarını anlamak ve bu mekanizmaların firma imajına ne yönde etki ettiği belirlemektir.

Dünyanın içinde bulunduğu değişim sürecinin odağında insan bulunmaktadır. İnsanın değişimi, sadece tüketici olarak alışkanlıklarının, yaşama biçiminin, tercihlerinin değiştiği anlamına değil, aynı zamanda, bir canlı olarak da değiştiğini kanıtlamaktadır. Yaşam süremiz uzamakta, bağışıklık düzeyimiz değişmekte, çevresel etkilere göre sağlık sorunlarımız çeşitlenmektedir. Tüm bu gelişmeler ile ilaç sektörünün küresel önemi her geçen gün biraz daha artmaktadır. İlaç sektörü; yeni ilaçların keşfine, yaşam süresine ve kalitesine etkisiyle oldukça önem arz eden bir konumdadır. Teknoloji ve yeniliklerin her geçen gün durdurulamaz bir hızla ilerlemesi sektörü sürekli değişen, gelişen dinamik bir hale getirmiştir.

İlaç sektörü diğer sektörlerle kıyasla kendine has bir yapıya sahiptir. Doğrudan insanla ilgili olan sektörün sınırları katı kurallarla çizilmiştir. İlaç firmalarının son kullanıcı konumunda bulunan hastalara direkt erişimi mümkün değildir. Bir hastanın bir ilacı ulaşabilmesi için önce ilacın bir hekim tarafından reçetelenmesi gerekmektedir. Bu durum hekimleri ilaç firmalarının pazarlama faaliyetleri içerisinde merkezi bir konuma koymaktadır.

Dünyada geleneksel ilaçların sektördeki payı düşerken uzmanlık ürünleri ise yükselen bir trend olarak gözlemlenmektedir. Uzmanlık ürünleri, daha küçük popülasyonları hedefleyen yüksek teknoloji ile üretilen ve pazarlama aktiviteleri açısından farklı bir yaklaşım gerektiren bir ürün havuzuna sahiptir. Hekimlerin zihinlerinde oluşan firma imajları rekabetin gittikçe kızıştığı uzmanlık ürünleri pazarında her zamankinden daha kritik bir hal almıştır.

İlaç firmaların en önemli pazarlama gücünü ürün tanıtım temsilcileri oluşturmaktadır. Ürün tanıtım temsilcileri doktorlarla düzenli bir şekilde yüz yüze görüşerek ürün ile ilgili her türlü bilgiyi aktarma ile yükümlüdürler. Bu bilgi aktarımı sürecini yürütmek ürün tanıtım temsilcisinin karakter özellikleri ve yetenekleri ile doğrudan ilişkilidir. Tanıtım yapan kişinin alanında olan uzmanlığı ve bilgiye hakimiyeti özellikle uzmanlık ürünleri pazarında aranan etkili bir özelliktir. Öte yandan ikili ilişkilerin doğru bir şekilde yönetilmesi ve gerektiğinde ulaşılabilir olmak hekimlerin önem verdiği özelliklerdendir. Bu özellikler doktor-ürün tanıtım temsilcisi ilişkisini doğrudan etkilemekte ve doktorların şirket özelinde kafalarında bir imaj oluşturmada anlamlı bir rol oynamaktadır.

Ürün tanıtım temsilcileri dışında hekimlere yönelik farklı pazarlama kanalları da mevcuttur. Bu kanallar hekimlerin gelişimini ve bilirliliğini artırmaya yöneliktir. Uluslararası ve ulusal kongre sponsorlukları, literatür destekleri, klinik çalışmalara

katılım, hediyeler ve eğitim olanakları ile şirketler doktorlara katkı sağlamaktadır. Bu katkılar bilimsel bir etkinlikte bir hekimi konuşmacı olarak destelemek ya da bir klinik çalışmaya bir hekimi dahil ederek yeni bir ilacı deneyimlemesini sağlayarak bilgi seviyesini geliştirmek şeklinde olabilmektedir. Bu ve bunun gibi pazarlama faaliyetlerinin hepsi firma imajına pozitif etki etmekle beraber firmaları bir adım öne taşıyabilmektedir.

Firma imajı, firma ile müşteriler arasındaki tüm etkileşimlerin bir yansıması olarak tanımlanır. Şirketin müşteri ile etkileşime geçtiği her aktivite olumlu ya da olumsuz olarak kayda alınır ve firma imajına etki eder. Pozitif bir firma imajı fark yaratan bir bileşen olarak kabul görmektedir. Bu doğrultuda ilaç firmalarının ürün tanıtım temsilcilerinin uzmanlıkları ve ikili ilişkilerdeki kabiliyetleri doktorlarla olan ilişkilerinin şirkete dönüşü açısından fark yaratmaktadır. Bunun dışında hekimlere yapılan kişisel destekler onların gelişimine ve bilinirliğine etki eder. Doğru yürütülen bu pazarlama aktiviteleri pozitif anlamla bir şirket imajı oluşturmada önemli birer araçtır.

Tüm ilaç sektörü pazarlama faaliyetlerine bakıldığında uzmanlık ürünlerinin farklı özellikler taşıdığı gözlemlenmektedir. Uzmanlık ürünleri üretimi kompleks, fiyatı pahalı, sadece belli uzmanlıklar tarafından reçetelenen ve küçük bir kitleye hitap eden ilaçlardır. Bu kompleks ilaçların doğru anlatılabilmesi ileri düzey bir bilgi seviyesi ve uzmanlık gerektirir. Bunun için şirketler ürün tanıtım uzmanlarının daha eğitilmiş olmasına dikkat ederler. Ayrıca yapılan hekim ziyaretlerinde tartışmaların doğru yönetilmesi, bilgilerin doğru aktarılması ve hekimler ile empati yapılması ürün tanıtım temsilcisinin özen göstermesi gereken başka bir konudur. Bu doğrultuda küçük bir popülasyona sahip uzman hekim kitlesine az sayıda ve kalifiye ürün tanıtım uzmanı ekibi ayrılmaktadır. Bu ekipler firmaların yüzüdür ve firma imajına doğrudan etki ederler.

Kompleks ve ileri düzey teknoloji ile üretilen uzmanlık ürünleri hekimlere kongreler ve bilimsel literatür aracılığı ile doğru şekilde anlatılmalıdır. Hekimlere bu alanda verilecek destekler hızla değişen ilaç sektörü ile ilgili hekimleri güncel tutacak ve hastalarına en doğru tedaviyi vermelerini sağlayacaktır. Ayrıca hekimlerin bilimsel etkinliklerde konuşması olarak desteklenmesi onların bu küçük camiada bilinirliğini artıracak ve şirkete için kafasında oluşturduğu imajı olumlu etkileyecektir.

Önceki çalışmalar, firmaların etkili bir değer ve farklılaşma faktörü olarak sadece ürünlerine güvenemeyeceklerini göstermektedir. Firmaların paydaşları ile olan etkinlikleri doğrudan ya da dolaylı olarak paydaşları üzerinde iz bırakmaktadır. Bu doğrultuda firmalar, güvenilir ve kendine has bir duruşun pozitif bir firma imajı ile sağlanabileceğinin farkındadırlar. Bu imajın şekillenmesinde pazarlama faaliyetleri sonucunda ve sırasında oluşan firma doktor etkileşimleri öne çıkmaktadır.

İlaç firmalarının ürün tanıtım uzmanları ve firmaların kişisel desteği hekimlerin firma imajı algıları üzerine etkisi olan birincil pazarlama kanallarıdır. Bu kanalların yarattığı etkileşimler, hekimlerde olumlu ya da olumsuz izler bırakır ve firma imajının şekillenmesinde rol oynar. Uzmanlık ürünleri pazarı düşünüldüğünde, satış ekiplerinin pazar, ürün, iletişim ve zaman yönetimi açısından daha eğitilmiş olması beklenir. Bunun dışında, firmaların kişisel destekleri hekimlerin karşılanamamış ihtiyaçlarını hedeflemek zorundadır.

Literatürde bulunan ilaç sektöründeki pazarlama faaliyetlerine ait bilgiler doğrultusunda ürün tanıtım temsilcilerinin özellikleri, ilaç firmalarının doktorlara verdiği kişisel destekler ve ürün tanıtım temsilcilerinin hekimlere yaptıkları

ziyaretlerin sıklığı araştırılmıştır. Bu araştırmalar ışığında, pozitif bir firma imajının şekillenmesinde hangi kanalların etkili olduğunu anlamaya yönelik istatistiksel bir model geliştirilmiştir.

Kantitatif bir yaklaşımla 191 hekimden birebir görüşmeler ile data elde edilmiştir. Sonuçlar; satış ekibi performansı, firmaların kişisel desteği ve ürün tanıtım uzmanların ziyaret sıklığının firma imajını anlamlı bir şekilde geliştirdiğini göstermektedir.

1. INTRODUCTION

Human beings are in the focus of the process of change in the world. This change does not mean that only human's habits, preferences and lifestyle change as a consumer. The human being is changing while life expectancy is increasing and the immune level is altering, health problems diversify according to environmental impact. The global significance of the pharmaceutical industry is increasing day by day in the period of change. Starting from the first day of human life to the last day, the pharmaceutical sector plays a key role. The sector has a big responsibility at finding new treatments for untreated diseases and enhancing the quality of patients.

Research and development activities of pharmaceutical companies grow rapidly and their success depends on the results of those activities (Vasiljev & Pantelic, 2010). The potential of development, the pace of the technology, strict regulations and competitiveness of the market make the pharmaceutical industry highly challenging and specific. It is stated that the trend of the industry will shift niche and specialty pharmaceutical products from traditional drugs (Aitken, 2007).

The pharmaceutical industry which is more associated with science is more regulated than other sectors because people's life quality is influenced by the pharmaceutical drugs and all these regulations, the nonesuch channel of healthcare provider and payer are planned in order to preserve the patient's welfare at an acceptable cost (Ding, Eliashberg & Stremersch, 2014, p.1). Clark, Vorhies & Bentley state that pharmaceutical marketing is unlike other consumer marketing. Physicians who are intermediaries between the patient and the pharmaceutical company are essential decision-maker and this is one of the fundamental differences in pharmaceutical marketing (2011).

Pharmaceutical marketing has to be done in a particular framework. The healthcare dynamics, regulations and stakeholders make the pharmaceutical industry completely unique as compared to other sectors. The most remarkable point is it is not possible to do direct promotions to the patients since it is regulated. It makes physicians the top

focus of pharmaceutical companies (Klemenc & Kersnik 2012, p. 321). At that point, pharmaceutical companies form their marketing instruments with detail aids and sales messages in line with regulations to reach their targeted physicians. It is done by activities like face to face visits by pharmaceutical sales representatives, key opinion leader management, detailing, advertising, literature providing, free samples or congress sponsorship (Bednarik, 2005, p. 639).

In a highly competitive environment, pharmaceutical companies aware that company image can make a difference and bring an advantage in the market. (Greyser, 1999). Firms can not only rely on the quality of their products. They should think all interactions with all stakeholder as a whole to be a pioneer in the competition. Transparency, credibility, accountability, trustworthiness and quality of services are the distinctive factors that develop a favourable company image (Balmer, 2001, pp. 248-250).

Corporate image is a popular concept among firms that provide a competitive advantage in the market. Most recently, it started to be in sight of the marketing activities of companies. It is essential to create a favourable corporate image in the customer's mind to foster customer loyalty and to reach the targets. The most important contribution of having a reputable image being the market driver instead of market-driven (Schwaiger, 2004, p. 48). Corporate image is saliently a holistic concept for the companies which senior management wants to implement to the organization but generating this approach is not that easy. It requires a long time and keeping is stable is very challenging. It is highlighted that the company image brings competitive advantage with it and makes the company more attractive in the eyes of the customer (Ponzi, 2011, p. 15-20).

In the literature, the structure of the pharmaceutical industry, marketing activities, types of marketing activities, company image and effect of company image are existing. However, a model that investigates the connection between company image and marketing activities such field force interactions, personal support (sponsorships, providing literature, supporting clinical trials) and visit frequency of pharmaceutical sales representatives are missing.

The aim of this study is creating a model that illustrates the effects of marketing activities on company image. Revealing the most effective channels or approaches that

form a favourable company image in physicians' mind in terms of marketing will enlighten the industry. Besides that, the provided results can influence the management of the sector in terms of allocating marketing resources and prioritizing marketing activities.

2. LITERATURE REVIEW

In the literature section, dynamics of the pharmaceutical industry, pharmaceutical marketing and its components, speciality pharmaceuticals and corporate image are highlighted.

2.1 Pharmaceutical Industry

The pharmaceutical industry is responsible for the invention of new drugs, life expectancy rise, quality development of the health care sector with minimizing time spent in hospitals and requirement for physical examination. These are very significant contributions. Furthermore, serious investments, skilled labour and in-depth research are necessary to discover new drugs. For this reason, the pharmaceutical industry is comprehended as a ‘value-creating sector’ and is acknowledged as one of the strategic investment fields in not only developed countries but also emerging countries (Ipek & Ipek, 2018, pp.449-450).

The pharmaceutical industry which is more associated with science is more regulated than other sectors because people’s life quality is influenced by the pharmaceutical drugs and all these regulations, the nonesuch channel of healthcare provider and payer are planned in order to preserve the patient’s welfare at an acceptable cost (Ding, Eliashberg & Stremersch, 2014, p.1).

Pharmaceutical firms must get this undertaking necessitates cautious administration of the company’s association with three essential players-patient, provider and payer-also the relationship between themselves in a regulated environment. In this structure, physicians are the final decision maker on drugs which puts themselves core of marketing activities of pharmaceutical companies (Ding, Eliashberg & Stremersch, 2014, p.6). The structure can be seen in figure 2.1.

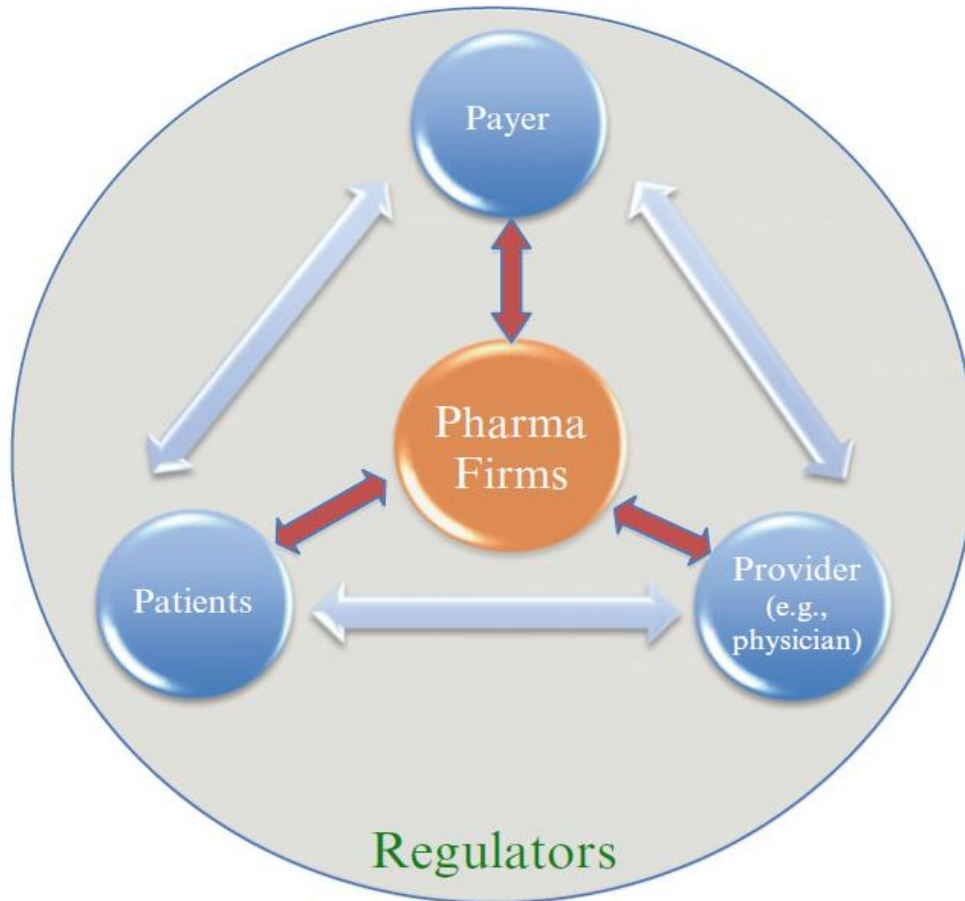


Figure 2.1 : Players and their relationships in the pharmaceutical market (Ding, Eliashberg & Stremersch, 2014, p.6).

2.2 Pharmaceutical Marketing

Clark, Vorhies & Bentley state that pharmaceutical marketing is unlike other consumer marketing. Physicians who are intermediaries between the patient and the pharmaceutical company are essential decision-maker and this is one of the fundamental differences in pharmaceutical marketing. On the other hand, physicians are affected by the patient's demand for a specific product in some drug types. This indicates that the physician is the main target of the pharmaceutical firm's relationship marketing activities. Strict regulations and laws are implemented by several states and governments. Then patents preserve the original products for a restricted period. When the patent is out of date, the generic rivalry begins and damages brand value. Finally, customer prosperity can be enhanced by research and development encouragement. Furthermore, lots of customer's quality of life is increased by means of pharmaceutical marketing (Clark, Vorhies & Bentley, 2010, p.145).

It is clear that the physicians are the heart of the drug usage and most of the pharmaceutical promotion is aimed at physicians instead of consumers (Calfee, 2002, p.78). According to Calfee pharmaceutical marketing's unprecedented environment influence pharmaceutical marketing and its outcomes. The most distinguishing feature of pharmaceutical markets is the physician's outstanding role. The reason for this is the laws that necessitate the purchase of the most powerful medicines merely with a prescription of a physician. The physician also offers competent advice for drug treatments (Calfee, 2002, p.79).

Levy states that associating efficient treatment to patient needs is the main task of pharmaceutical marketing. Physicians are informed by pharmaceutical marketing about the appropriate use of drugs and their actions. Marketing is a very significant factor of pharmaceutical innovation; physicians do not have an efficient innovation if they have not information about the treatment chances propounded by new drugs. Marketing ensures physicians with a well-informed, attentively characterized representatives, especially to the patient's needs. The high marketing expenditures made by the pharmaceutical industry represent the intensity of effort necessitated to deliver this significant information. Communicators that delivers this information demand through a comprehensive support infrastructure and training. Expenditures related to these marketing activities can be compensated mainly by the price competition between similar products and the savings resulting from the appropriate use of existing drugs (Levy, 1994, p.327).

To summarize Levy, promotion, which is an important communication channel, plays a critical role in continuing physician education. The most arranged and extensive system in order to update physicians about security, effectiveness, risks and practices of using drugs is company-based promotion (Levy, 1994, p.327). According to Calfee, promotion and advertising activities which are the apparent sections of marketing concentrate on information. Pharmaceutical product features do not mean sufficiently without convincing information on what a product indeed does (Calfee, 2002 p.81).

Calfee stated that promotion and advertising which are visible components of marketing concentrate information as absolute information is in the centre of the pharmaceutical industry. Pharmaceutical product properties do not mean anything unless convincing information exists about what a product literally does. Differently,

from typical products like automobiles or computers, when used as almost the same two molecule medicines, they mostly have dissimilar effects (2002, p.81).

Physicians have difficulty in changing their prescribing attitude, they fall short of complying with evidence-based practice rules published by prestigious organizations generally. This does not mean that the guidelines for the application are so perfectly designed and comprehensive that physicians should follow whatever the individual situations and decisions. However, medical leaders are convinced that patients should benefit from the closer commitment to standard treatments by many reports. In addition, physicians are more attentive to make the diagnosis for circumstances when efficient medicine treatments are known (Calfee, 2002, p.81).

Calfee also states that faster propagation of knowledge about new pharmaceuticals can enhance health. It is discovered that advertising develops markets by spreading worthwhile information with the purpose of increasing individual brand sales by economic research in various other markets like fast moving consumer goods, lawyers and eyeglasses. Pharmaceutical producers encourage to do the identical thing for their products (2002, p.81).

Pharmaceutical firms' marketing efforts are often directed to physicians. Marketing activities for physicians consist of sampling which means the provision of free medicines; personal selling through sales representatives; physician meetings and activities; and ads in medical journals (Manchanda & Honka, 2005, pp.786-787).

There exist various ways to the pharmaceutical firms-physicians connection consisting of primarily the influence on physicians' attitudes, vision and knowledge (Sillup, Dehshal & Namini, 2013, p.277). According to Gagnon & Lexchin, pharmaceutical marketing spending concentrates on sales representatives and sales promotions that includes detailing, sponsorships, free samples, gifts and direct to consumer advertising. The major marketing activity is detailing in the industry which means face-to-face visit of pharmaceutical representatives with healthcare professionals. Samples are also distributed by sales representatives and this method is very common in the sector. DTCA is not possible in every country because of strict norms of government. It includes the promotion of medicines on television, billboards and magazines (2008, p. 30).

2.2.1 Pharmaceutical sales representatives

In this section, pharmaceutical sales representatives' definition and their impact on business are indicated. The literature includes the following dimensions on this topic: the professional value of PSRs, visit frequency and characteristics of the relationship between physicians and PSRs.

2.2.1.1 Professional value of pharmaceutical sales representatives

Dominant pharmaceutical companies mostly rely on their three main muscles to ensure a successful performance. These are the innovative mindset with a strong research and development investment, protection of owned patents and an effective sales force (Moss & Schuiling, 2003)

Even though there are various channels to reach the voice of the customer for the companies, the sales force has the primary role at converting this voice into insights. In most of the industries, sales force are responsible for creating value through the interactions with the customer. They are able to sense changing unmet needs of customers and adapt their approach in the direction of those needs (Flint, Woodruff & Gardial, 2002).

Wright & Lundstrom indicate that pharmaceutical firms' marketing muscles are directed at physicians who are authorized to prescribe. Fundamentally, this is done by using pharmaceutical sales representatives who are also known as drug representatives or detailers (2004, p.30).

The most crucial marketing instrument for pharmaceutical firms is PSRs. It is stated that experienced and well-educated PSRs have a direct impact on the prescribing behaviour of doctors. Furthermore, Bednarik indicated that there is a positive correlation between PSRs' activities and the volume of sales on behalf of pharmaceutical companies (2005).

Singhapakdi & Vitell interpreted the professional value as the creation of a specific profession related value through stakeholders of that particular profession (1993, p. 528). On another study, Wright & Lundstrom indicated that doctors perceive features like trustworthiness, honesty and being ethical as important professional values (2004, p. 31). The ethical demeanour of a sales representative is a vital point in terms of patients welfare. (Roman & Ruiz, 2005, p.440). Besides that, Roman & Munuera

explained the ethical demeanour of a salesperson as being honest and decent in relationship with the customer so that salesperson can create trust and satisfaction which brings the healthy and long-term relationship with stakeholders (2005, p.479).

Sales representatives are responsible for providing accurate product information to HCPs in a very challenging environment. The biggest challenge is the lack of time of physicians. Visit's duration is very short and sales representatives have to use that time very well to develop an effective relationship. Consequently, the most crucial thing for a sales representative is quickly creating a positive perception (Wright & Lundstrom, 2004, p.30).

Mantel stated that Long-term interactions between sales representatives and the customer can turn into deeper personal relations that produce deeper reflections on company image (2005, p. 45). Lagece interpreted that ethical sales approach is formed on a very slippery environment which depends on quite sensitive and reactive situations (1991, p. 40). Cooper & Frank stated that sales representatives use unethical methods like a misleading customer about product features, hiding the truth that might be negative effects on customer, giving manipulative messages and inducing the customer to gain short-term success (2002, p. 6). Nevertheless, throughout long-term interactions with customer unethical can give negative results in terms of firm image and satisfaction. In another study, it is found that the unethical approach of sales force causes poor satisfaction, decrease in profitability and loss of reputation (Dubinsky, 1992, p. 38).

Relation-centred sales representatives make value creation, like in the pharmaceutical industry. They try to work with the physician to clarify pharmaceutical solutions in order to enhance the care of the patient. This necessitates sales representatives to fully understand the needs of physicians and persuade them that they possess the product to meet these needs. Nevertheless, a sales representative must display values in order to acquire the trust of a physician (Wright & Lundstrom, 2004, p.34).

Clark, Vorhies & Bentley state that like in personal selling, face-to-face buyer-seller interplays are seen as 'the most significant factor in marketing communications'. Pharmaceutical sales representatives (PSRs) are not only a passive information channel but also the firm's active representatives. They can affect the perception of people through their ability to customize and interact with physician decision makers.

The study made by Clark, Vorhies & Bentley sees PSR expertise as a preceding to quality of relations. Seller expertise represents the seller's experience, knowledge and entire qualification. As a result of empirical research, it has been found that perceived relationship quality and selling effectiveness are influenced by expertise positively. Seller expertise supplies a sense of reliability for the physician to the PSR. The fact that the PSR is trusted by the physician positively affects the physician's information evaluation provided by the vendor. Pharmaceutical sales representatives who satisfy physicians consolidate the quality of the relationship (Clark, Vorhies & Bentley, 2010, p.147).

Expertise symbolizes experience, capability and knowledge of sales representatives. An empirical study depicts that expertise of the seller has a positive connection with the perceived image of the company (Wood, 2008, p. 266). Expertise is characterized as possessing experience, skills or knowledge on a specific subject. An expert sales representative should have a grasp of strong and weak points of products in the market and he/she should convey it without disparaging or misleading. All intentional or unintentional incorrect knowledge sharing has a direct impact on the patient's well being and physicians' reputation (Lagace, 1991, p. 43).

Sales representative's expertise brings a sense of credibility in physicians' mind. Credibility and trustworthiness to the information provided by the seller have a direct proportion with satisfaction and satisfaction between the physician and sales representatives reinforce the quality of the relationship (Clark, 2011, p. 147).

Another factor that is related to professional value is trust. Trust is referred to as a crucial instrument to build strong bonds between stakeholders and sales force in long-lasting relationships. Other than that, trust is a key point to improve the business in the market (Berry, 1995).

Cater & Zabkar describes trust as expected feelings from individuals which are shaped by expertise, will and reliability. The process of deciding on a particular drug for the patient's well being should be very professional (2008, p. 786). Physicians are in the centre of the process and sales representatives are one of their primary information sources. A professional approach is expected from sales representatives that can contribute physicians decision in a positive way. A trustworthy PSR should have full

knowledge of his product and market to present possible opportunities to the physician for the sake of the patient (Ion 2013, p. 36).

Wazama indicated that PSRs play a substantial role in drug selection in the pharmaceutical sector (2000 p. 373). However, it depends on the relationship between the PSR and the physician. Unless PSR's positive approach can't be perceived as professional value by physicians, they don't tend to trust pharmaceutical sales representatives. Eventually, it affects firm image negatively (Doney & Cannon, 1997, p. 38).

2.2.1.2 Relationship characteristics of pharmaceutical sales representatives

Homburg and Jensen have interpreted interpersonal skills as the ability to communicating, convincing and managing conflicts (2007, p. 125). Interpersonal skills of a salesperson are one of the most crucial determinants of performance. It contains skills like overcoming conflicts, understanding the need of the customer, persuading and coping with discussions (Rentz, 2002, p. 15). On the other hand, it is defined as having a good level of social skills. The interpersonal skills of a salesperson have a direct connection with the trust level of customer. It has been determined that there is a close relationship between customer satisfaction and interpersonal skills (Guenzi, 2002, p. 750). However, there are opposite findings in the literature as well. Wachner, Plouffe & Grégoire have claimed that all sales representatives cannot have the skill of sensing requirements of the customer and act according to it. As a result, the level of interpersonal skills of sales representatives differs from each other and it can not be the same. High level of interpersonal skills bring the features like maintaining an efficient relationship, getting liked by customers and handling conflicts it which makes different in the field (2009, p. 33). According to Timor & Tuzuner, those circumstances lead to prefer the right sales representative with interpersonal skills of high quality (2006).

According to Crosby Responsiveness has defined as readiness and willingness to provide service to a customer. It is beneficial for the stakeholders in terms of managing time. It has been proved that responsiveness has significant importance on psychic matters for customers in face-to-face visits. Representation of willingness to assist a customer in visits is very advantageous for companies. Additional, positive attitudes appertaining to responsiveness were linked outcome perceptions (1990, p. 70). On the

other hand, negative responses of sales representatives cause the perception of being ignored and weak service which creates an unsatisfied memory in customers' mind (Keaveney, 1995). In a nutshell, responsiveness has an influence on stakeholder's perception of the salesperson (Naylor & Frank, 2000, p. 312).

Doney & Cannon states that there is four characteristics of relationship behaviour between customer and salespeople. Those are likeability, visit frequency, interpersonal communication and similarity (1997, p. 41). According to Rotter, likeability is an assessment of customer on particular feelings like friendship, niceness and pleasantness that is aroused by salespeople. Furthermore, a positive correlation found between likeability and trust in different studies in the field of psychology (1980). Swan stated that likeability brings trust with it. It is a subdimension of trust and those two concepts are linked to each other positively (1985).

The similarity is another characteristic relationship factor and it is explained as having alike values and interests with someone (Johnson & Johnson, 1972). Similarity can build confidence between salespeople and customer. Sharing common beliefs make the customer more comfortable while they are interacting with the salesperson. Predicting someone's barriers, motivations, behaviours and feeling through common characteristics foster trust and it eases to create a strong long-term relationship (Doney & Cannon, 1997).

Weilbaker investigated the relationship between sales representatives and physicians and found that salespeople who are more helpful, sociable and well-mannered thought as more likeable. Furthermore, likeability makes a difference among their peers in a positive way (1990, p. 47). Other than that, Sharma stated that PSRs are in the centre of the business environment and positive relations of PSRs cause an increase in the effectiveness of marketing, promotion, interpersonal communication and sales activities. PSRs ease life of physician suggesting proper solutions for problems or giving accurate information about the products. In addition, they help with the participation of physicians in scientific events (2001, pp. 125-126).

An interactive and social interaction of a salesperson affects the physician's perception as compared to a stable one. Physicians engage in such an environment that is built by sales representatives (Argo, Dahl & Manchanda, 2005, p. 209). Humphreys & Williams indicated interpersonal communication and reciprocal opinion exchanges

play a significant role in the decision-making process of a product. Furthermore, it can be obtained an ideal relationship environment during visits with physicians which includes features like high discussion quality, communication-based on feedbacks and beneficial recommendation (1996, p. 48). Another study conducted by Hossain & his friends, a positive correlation detected between interaction quality of PSR and the prescription decision of physician (2013, p. 115).

Ion stated that regular visits of a PSR are one of the most crucial promotion channels for pharmaceutical companies. Product-related information exchange is made in those visits and it is very beneficial for physicians to keep themselves up to date (2013). Connelly indicated that one of the most important parts of PSRs' visit is frequency. Their study conducted in Great Britain showed that 93% of participants visited by a pharmaceutical sales representative once a week and they remark that it would be a loss of an important information source if they did not visit by PSRs (1990).

2.2.2 Promotion activities

Sales representatives are the most significant marketing instrument for pharmaceutical companies. The professional value and relationship characteristic of them have been explained in the above sections. However, sales representatives' contribution is limited considered on their own. In this regard, other marketing tools indicated by Gönül as follows personal detailing, congress sponsorship, free samples, promotional materials (2001).

Pharmaceutical marketing has to be done in a particular framework. The healthcare dynamics, regulations and stakeholders make the pharmaceutical industry completely unique as compared to other sectors. The most remarkable point is, it is not possible to do direct promotions to the patients since it is regulated. It makes physicians the top focus of pharmaceutical companies. Physicians need to be convinced to prescribe so that patients get the drug and company sales can be realized (Klemenc, 2012, p. 321). Moreover, promotion activities of pharmaceutical companies observed by regulators such as governments, World Health Organization and other institutions. On the contrary of other sectors in terms of marketing the end user of pharmaceutical companies is physician which actually is not the real end user. Physicians are the decision makers in the name of patients. Diagnosing the illness, deciding on treatment and following the process require a scientific background and expertise that doctors

have. However, from an ethical perspective, not all pharmaceutical marketing activities target the right choice for the patients. As a result, payers like governments and private insurance companies control the relations between pharmaceutical companies and physicians with particular regulations (Meenaghan, 2001, pp. 95-96). At that point, pharmaceutical companies form their marketing instruments with detail aids and sales messages in line with regulations to reach their targeted physicians. It is done activities like key opinion leader management, detailing, advertising, literature providing, free samples or congress sponsorship (Bednarik, 2005, p. 639).

2.2.2.1 Detailing

Personal selling is a very dynamic, interactive and unstable since it is in touch with people. Salespeople are the artists here and they are able to make fit the communication according to customer's behaviour and need. The Pharmaceutical industry has its own dynamics and PSRs should convince physicians of products prescription which they don't buy it personally. Consequently, pharmaceutical firms use their marketing muscles on physicians to get a result and PSRs play the biggest part here (Wright & Lundstrom, 2003, p. 30). Clark, Vorhies & Bentley indicate that retention is relatively achieved by the relationship which the physician develops with the pharmaceutical sales representatives. All pharmaceutical and marketing literature asserts that physicians' prescription behaviour is affected by pharmaceutical sales representatives. Detailing plays a critical role in the number of new prescriptions made by a physician, there is a positive correlation between them. The most influential manner for pharmaceutical firms to have an impact on physician decisions is the use of detailing by pharmaceutical sales representatives (2011, p.146).

PSRs visits targeted physicians regularly and detail the product that they are responsible for. Detailing is the largest part of marketing expense. From a historical perspective, the essential promotional tool of the pharmaceutical industry has been detailing. It is a presentation that gives information about indications, side effects, the effectiveness of drugs, treatment durations, pretreatments and etc. (Manchanda & Honka, 2005, p.786). For this reason, sales representatives should have a high level of knowledge about below topics to direct the physicians on treatment decisions. Detailing plays a key role in the prescription behaviour of healthcare professionals. With the pace of healthcare industry, it is very challenging for physicians to keep

themselves updated. In that case, the information provided by detailing process is very valuable (Wright & Lundstrom, 2003, p. 31).

Machanda & Honka stated in their study that there are two points as a result of the relationship between detailers and healthcare professionals. First one is about the positive effect of detailing on the prescription attitude of physicians and the second one is a negative attitude to PSRs because of their support to physicians in terms of education and unsatisfied approach in terms of communication and knowledge level (Manchanda & Honka, 2005, p. 787).

Caudill researched tendency of healthcare professionals towards sponsored education, pharmaceutical sales representatives' behavioural approach and detailing benefit. It is accepted by physicians that PSRs provide useful information about drugs and the latest updates and they are important for their daily clinical practice. However, only some of them found PSRs as a training function (1996, p. 201). Contrary to Caudill's study, Mckinney indicated that there is strong evidence that physicians are not positive about detailing process (1990).

In brief, physicians see pharmaceutical sales representatives as a beneficial information source and they are positive the detailing process. Specially general practitioners are more supporter of detailing than specialists (Manchanda & Honka, 2005, p. 790). Other than that, it is stated that information comes from detailing is much more useful than it comes from secondary sources (Connelly, 1990).

Consequently, detailing can create a positive impact on physicians attitudes on the company and their prescription tendency. Sales representatives knowledge level and communication skills affect the quality of detailing directly. Detailing process is essential and PSRs are in the heart of the business.

2.2.2.2 Sales promotions

Sales promotions are defined as instruments that companies use as marketing tools. It includes all marketing activities except personal selling (Jobber & Lancaster, 2005, p. 6). Management of sales promotions differs in the pharmaceutical sector but the goal is in line with general marketing perspective which is increasing the access to the patients and get them the related products. Nevertheless, promotional activities are shaped under district regulations in the pharmaceutical industry. Sales promotions include different type of incentives such as continuous medical education, gifts,

sponsorship for the international or national congresses and honorarium fee paid to speakers invited to internal or external events of the company (Brett, 2003, p. 2214).

Too many studies have been conducted about the promotion activities of pharmaceutical companies and their connection with the prescription decision. Wazana states that sales promotions only avail remembering the products of the firm (2000 p. 374). On the other hand, Machanda & Honka stated that there is strong evidence between prescription tendency and promotional activities of pharmaceutical firms (2005).

According to Diehl, promotional activities of pharmaceutical companies are crucial for success in the competition. Companies have 3 major goals in terms of marketing perspectives and they allocate a high amount of resources to get it. These goals are introducing all product related information to the physicians, convincing the physician for prescribing and making the physician advocate of the product (Diehl, 2008, pp. 99-102).

Gifts

Another part of pharmaceutical marketing is giving gifts to physicians. These gifts can be varied as notebooks, free meals, pens and etc. Generally, those gifts are given by sales representatives of pharmaceutical companies (Manchanda & Honka 2005). According to McKinney, gifts create a necessity on physicians and they want to repay those gestures. Many physicians do not see gifts as unethical behaviour. They are comfortable with this process. (1990).

According to Thomson, low value or low-cost gifts are not enough for affecting physician. They expect high-cost and high-value gifts from pharmaceutical companies. However, it can not be said that low profile gifts don't have any impact on healthcare professionals. (1994, p. 221). In a study that has conducted by Madhavan, it is stated that physicians accept gifts to a degree and they found it useful (1997, p. 208). In another research, Turkish physicians were asked about their expectation in terms of gifts. %47 of participants highlighted that a gift should be a science related material. 56% of doctors said that gifts should be related to the product and 54% of them indicated gift should be practical (Nayir, 2006).

Sergeant emphasised that most of the family practitioners like to interact with PSRs in a free dinner. However, they found these types of activities as a waste of money because they think it reflects the cost of drugs in a negative way (1996, p. 1243)

Gibbons investigated the point of view of physicians and patients to the given gifts by pharmaceutical firms. He found that patients see the gifts of pharmaceutical industry unethical and unsuitable and they think that physicians can be affected by these kinds of activities. In a study conducted among Turkish physicians, it is discovered that 18% of participants remarked the positive impact of industry gifts on the prescription decision. Other than that, 12% of the participants indicated that there is no correlation between their prescription decision and industry gifts (Güldal, 2000, p. 594). Another study carried out by Madhavan on stationery gifts that contain name or sign of the brand or company. It is found that stationery gifts with brand or company visual are more effective than verbal communication (1997, p. 209).

In summary, free meals that are arranged by pharmaceutical companies can be beneficial if the product related queries can be fulfilled during the conversation. On the other hand, gifts given by the industry have different types of impact on physicians and patients. Useful, scientific information related or reminding gifts are preferred by physicians and those gifts have an influence on prescription behaviour. Furthermore, most patients find those gifts only commercial and they believe that physicians decisions will nonobjective in terms of drug selection with the effect of gifts (Wazama, 2000, p. 373-380).

Sponsorships

Pharmaceutical companies sponsor to physicians for international and national events such as congresses, satellites, CMEs or clinical trials. The purpose of those sponsorships is supporting the physicians and making them aware of the latest updates on products, treatments and literature. Those events are very beneficial and important for doctors because they are able to update themselves. Especially, continuous medical educations provide information about side effect management, treatment duration, premedication, treatment or diagnosis (Orlowski, 1992, p. 272).

Ion stated that scientific support to physicians is one of the most effective parts of pharmaceutical marketing and it has a positive effect on prescription behaviour (2013). Scientific supports can be classified as; literature support, detail aids, samples,

brochures, company websites, congress sponsorships and medical meetings (Yılmaz, 2008). The company supported symposiums play an informative and social role for physicians. Physicians from different cities find an opportunity to share their experience with their peers and they can listen to medical experts to gain extra knowledge about their field (Goyal & Pareek, 2013, p. 57). Moreover, Orłowski expressed the significance of CMEs at physicians' prescription tendency. Other than that, sponsored symposiums and congresses are an effective tool for physicians' education and it contributes physician's perception of the company in a positive way (1992, pp. 270-271). In a study conducted by McKinney, physicians attitude towards pharmaceutical representatives investigated. Majority of physicians think positive about supporting as a speaker in conferences and scientific platforms by sales representatives (1990).

Although, CME is essential, there are other methods that the pharmaceutical industry can support the physicians. Providing scientific literature and access to clinical trials are other beneficial marketing instruments for HCPs. In the United States, most of the doctors who have the membership of Infectious Disease Society of America finds clinical support very important for the development of themselves (Kunin, 1978, p. 845) In a study executed by Massie & Rothenberg, it is asked if physicians conduct their clinical trial with funding or not. 45% of participants stated that pharmaceutical companies sponsored their trials (1984). The latest study conducted among 40 Canadian healthcare professionals illustrated that most of the HCPs are thankful to pharmaceutical companies on the occasion of clinical research sponsorships (Taylor, 1991).

2.3 Specialty Pharmaceuticals

Pharmaceutical industry's demographic, social and economic content is altering strikingly. Over the years, pharmaceuticals firms made a decision about their products' value and they priced out them correspondingly. However, healthcare decision-makers, patients and payers play a crucial role in the valuing process- and this tendency will pick up speed, as long as healthcare expenses continue to rise (PWC, 2007, p.2).

The ageing of the population, with more immobile life-styles and nutritional changes, is increasing the disease burden not only in developed countries but also in developing

countries. In addition, new therapies found for curing very serious diseases raise people's expectations (PWC, 2007, p.4).

Altering the product mix of the industry will act as encouragement in health management. In the 1990s, the pharmaceutical industry was more focused on traditional drugs that treat diseases like diabetes, depression, cholesterol and etc. These drugs were covering more patient groups. However, with the accelerating pace of Research&Development investments high technological drugs started to come into the market. These drugs are based genomics, metabolomics and proteomics and they copy molecules in the human body (PWC, 2007, p.13).

Global healthcare applications and costs are affected by the development of specialty drugs. With the development of healthcare spending, specialty drugs have gone up over the last 10 years. However, a universal consent definition stays uncertain. A specialty drug cures a rare, difficult-to-manage complicated, circumstance and can contain bioengineered proteins and blood analogs. Specialty drug medication is usually by way of injection or infusion in the doctor's office. On the other hand, some specialty pharmaceuticals can be orally medicated. For these biopharmaceuticals, special packaging like radiation shielding or cooling is necessary and also continuous observation is crucial for safety, effectiveness and positive clinical response (Patel & Audet, 2014, pp.1105-1106).

Mullins, Lavalley, Pradel, DeVries & Caputo (2006) indicated that specialty drugs' prescription cost is \$10,000 per month which is very high. For instance, from part D in the Centres for Medicare and Medicaid Service (CMS), it is stated that a specialty pharmaceutical is classified as one with at least monthly cost of \$600. Cost thresholds that may be up to double this quantity are set by some insurance programmes. By the way of research information, a specialty drug is categorized on the basis of the cost by the 84% of commercial payers with \$1,154 the average least monthly cost. Even though sometimes specialty drugs can be understood as biological drugs, they do not have the same definition (Stern, 2008).

While there is no universally accepted definition, specialty drugs are generally defined as having one or more of the following characteristics:

- Complex to manufacture and store

- Difficult to administer, often coming in injectable or infusible formulations (although oral specialty drugs are becoming more prevalent)
- High in cost, both in total and per-patient cost
- Challenging for patients to take without ongoing clinical support

Initially, specialty drugs were used exclusively to treat chronic conditions such as cancer, rheumatoid arthritis, and multiple sclerosis, but in the last few years, their use has expanded to touch additional disease states.

Specialty drugs are generally uncertain, protein-based, large molecules which are manufactured by the way of a biotechnology process. They differ from other typical drugs produced by synthetic processes or derived from biological sources. Complicated cases influencing diversified disease populations, like cancer, hepatitis C, pulmonary hypertension, multiple sclerosis, hemophilia, have been cured by early specialty pharmacy products. Nevertheless, latest pharmacy products can be targeted to more common chronic diseases necessitating maintenance treatment like asthma and rheumatoid arthritis. Health programmes and other payers can differentiate depending on the drugs they categorize as specialty drugs. However, a consistent connection is that specific drugs require more caution and management (AMCP, 2006, p.1).

Nevertheless, even though the specialty drugs have a very large clinical and financial promise, there is a significant drawback: charging profiles. Tufts Center for the Study of Drug Development forecasts that a new biological development cost is approximately US \$ 1.2 billion, almost US \$ 400 million more than a little molecule average. However, specialist treatments are used in order to cure circumstances influencing only 3% of the general population at the present time. Consequently, a firm that develops a specialty drug has to amortise its investment (containing money spent on sales and marketing) through a smaller number of patients. Therefore, the significance of the marketing and sales process is enhanced. Most pharmaceutical companies maintain using a sales and marketing model planned to promote primary market consumption for their primary market, even if they accept the potential of specialty drugs (PWC, 2007, pp.13-14).

2.4 Specialty Pharmaceuticals Marketing

Some manufacturers, in particular, those marketing specialty products, are adopting a more targeted and technology-driven approach to sales. Sales representatives are a key promotional tool in Turkey. Given the importance placed on face-to-face contact with physicians and the size of the country, sales forces tend to be large. The leading companies have well over 1,000 sales personnel, while medium-sized manufacturers will have several hundred (Spatz, 2013).

There have been a number of measures in recent years to restrict the activities of sales representatives. Appointments with hospital doctors are now controlled by hospital management, and visits to both hospital and primary care physicians are supposed to take place outside working hours. The new promotional regulations that came into force in July 2015 strictly limit what reps can give to doctors and the new disclosure requirements mean that all donations to healthcare organizations over a modest value must be declared. The rules governing the sponsorship of doctors to attend meetings have also been tightened, although they remain more permissive than in many countries (Spatz, 2013).

The difficult environment means that companies are having to focus more on productivity and a number of companies are reducing salesforce sizes and concentrating on quality rather than quantity. While companies selling commodity products will continue to have large sales forces, manufacturers of specialty products will change their sales and marketing practices. The number of reps will reduce while productivity per employee will rise, due to greater focus on key prescribers and the use of digital technology (Spatz, 2013).

Actually, specialty treatments have various unique characteristics that distinguish them from traditional drugs and indicate that they need to be marketed quite distinctly. Primarily, they generally have a wider range of activities and a larger potential to create an immune response. In addition, they are prescribed by specialists instead of practising physicians. Therefore, people who are marketing such drugs should have important scientific knowledge in order to understand both the benefits and risks of their use as well as to communicate with a well-informed audience (PWC, 2007, p.14).

A pharmaceutical firm wishing to sell specialty treatments must develop a comprehensive marketing and sales strategy appropriate to such products'

idiosyncratic features (PWC, 2007, p.15). Many of the specialty pharmaceuticals developed by the industry will clearly to be targeted at circumstances which were beforehand unexplored because there was no information necessitated to differentiate between diversified types of disease. For this reason, pharma will have to supply more support to help physicians follow the latest medical developments (PWC, 2007, p.19). Any pharmaceutical firm that wants to be strong in specialty pharmaceutical industry needs to develop a comprehensive sales and marketing strategy which is particularly tailored with idiocratical characteristics for the market. Table 2.1 shows the comparison between mass-market drugs and specialty drugs in terms of marketing perspective (PWC, 2007, p.15).

Table 2.1 : Specialist therapies require different marketing and sales models from those used for mass-market medicines (PWC, 2007, p.15).

Mass-market drugs	Specialty drugs	Marketing implications
Treat common illnesses	Treat rare diseases and specific disease Subtypes	A much smaller target market. Must generally be used with a diagnostic, which adds to the overall cost but improves compliance
Relatively simple products	Very complex products	Require more scientifically educated sales representatives
Typically prescribed by general practitioners	Prescribed by specialists	Require a much smaller sales force
Low price per dose	Very high price per treatment	Require much more extensive proof of clinical efficacy.
Relatively easy to manufacture	Difficult to manufacture	Less vulnerable to generic competition
Easy to transport	Require special distribution and storage facilities	More expensive to ship and store
Generally kept in stock	Often delivered to order	Must be supported to much more flexible supply chain

2.5 Company Image

Company image is a popular concept among firms that provide a competitive advantage in the market. Most recently, it started to be in sight of the marketing activities of companies. It is essential to create a favourable company image in customers' mind to foster customer loyalty and to reach the targets. The most important contribution of having a reputable image being the market driver instead of the market-driven (Schwaiger, 2004, p. 48).

Company image is saliently a holistic concept for the companies which senior management wants to implement to the organization but generating this approach is not that easy. It requires a long time and keeping it stable is very challenging. It is highlighted that the company image brings competitive advantage with it and makes the company more attractive in the eyes of the customer (Ponzi, 2011, p. 15-20).

Kennedy indicated that forming a company image takes so many years to establish (Kennedy, 1977, p. 124). Furthermore, image is described as how the customer or stakeholders see the company. It puts perceptions of customers in the centre rather than employees (Davies, Chun, Vinhas & Roper, 2001, p. 113-115). According to Sakman, company image is all about how the stakeholders see the personality of the firm and how they respond to it (2003). Other than that, Weiwei described the company image as a reciprocal relationship shaped by interactions and offerings of a company and response of stakeholder to those activities that reflected as impressions and beliefs. With other words, it is a comparison between companies approaches to the customers (Weiwei, 2007, p.58). Ion illustrated the company image concept as a picture of a company that consists of various images recorded in customers' mind. All those images generate a total image of the company. The company image is an essential factor that affects the relationship with physicians in the pharmaceutical industry (2013, p. 32).

Moreover, company image can be created with long term interactions through personal selling activities, sponsorships, advertising, digital marketing, advertising and other sales promotions. It is a whole process and needs careful attention. (Grützmacher, 2011, p. 24-26). Flat & Kowalczyk illustrated the company image as a multidisciplinary structure. It includes various components like investors, customers, and employees (2006). Forming a company image is a cumulative process. Every

image of stakeholders accumulates and shape the image. It takes time and effort to build and prevent it from a company perspective. Other than that, company image provides reliability, trustworthiness, accountability and credibility. (Ljubojevic, 2008, p. 222). Botha, Sanders & Viljoen stated that a customers' overall rating on firm based aspects generates the company image. This evaluation process includes products, representatives and all kind of interactions (2009).

More and more firms are conscient that idiosyncratic and reliable attraction can be supplied by a positive company image (Hall, 93, p. 608). Firms can not trust their products as efficient added value and differentiation. Because quality standards and potentials have converged and in partial requirements increased for clearness and accountability. Upgrading a favourable company image is a more influential pattern of differentiation and rivalry advantage (Dowling, 1994).

As Wright & Fill stated in 2001, an important amount of investment is needed for the development of a proper image by way of identity management in both monetary resources, time and management exertion. For this reason, the investment return has to be explicit and definable. (Wright & Fill, 2001, p.99).

Company image is perceptions of individual about activities, operations and achievements of a company. Image perceptions affect market operations. Therefore, image perceptions are significant to the company and the stakeholders. It is proved by research, that company image is associated with decisions of stakeholder about the company, like customer's price level perceptions, decisions of job searchers to make an application for employment and employee's manners to their company (Riordan, 1997, p. 402).

Wright & Lundstrom also state that company image conveys signals which serve a significant function in the competitive markets the company located into different stakeholder groups of an organization. These signals are crucial for market preferences of potential stakeholders like physicians and the signals provide data about unobservable features of the organization. As a result, different information tips and signals provided by the company are processed selectively by numerous stakeholders in order to evaluate the effectiveness of the company in meeting its requirements and concerns. Company image pursues reasonably that physicians' perceptions of

pharmaceutical firms, in which a specific representative works, affect the physicians' perceptions of the representatives (Wright & Lundstrom, 2004, p. 33).

3. METHODOLOGY

3.1 Conceptual Framework

The pharmaceutical industry plays a big role in our lives and specialty pharmaceuticals are one of the most innovative and competitive parts of the industry. The competition differs in many ways in this field since it requires specific knowledge and expertise. The pharmaceutical companies' main focus is providing the best service to their most important stakeholders "physicians" and they shape their marketing activities according to it.

The main objective of this study is forming a statistical model that gives the patterns of having the most liked company image in physicians' mind through marketing activities and specialty pharmaceutical market has been chosen to experiment it. To understand the mechanism, dynamics of the pharmaceutical industry, marketing activities to physicians and company image concept has been introduced through literature. According to the results, the conceptual model has been shaped.

According to Riordan (1997) company image is defined as a perception of a person about interactions, activities and achievements of a company. Image perception is essential for stakeholders and companies since they affect market dynamics. Previous researches have illustrated that company image has strong a connection with stakeholder's perception of the company (p. 402).

The company image is a concept that develops with signals of a company spreads to its diversified customer. Those signals shape the market that the company competes. The stakeholders like HCPs benefit from those signals to generate their perception of the organisation. Each stakeholder has unique needs and interests to meet in the market and relationship between them and the companies have a direct effect on it. The satisfaction level of the HCPs determines the positive or negative image of the company. Company image transforms into stakeholder's overall impression of the company and it is linked to the ability to meeting the needs of stakeholders (Wright, 2004, p. 33).

Patients' demand is growing more than ever in these days due to available information on healthcare. On the other hand, the increasing pace of innovations makes difficult to keep up with the latest updates in the pharmaceutical industry for physicians. Besides that, they have to ensure that the right treatment for the right patient is given. Pharmaceutical companies play the key role to meet those needs of physicians (Norris & Holmer 2012).

There are various ways to shape the pharmaceutical firms-physicians connection consisting of primarily the influence on physicians' attitudes, vision and knowledge (Sillup, Dehshal & Namini, 2013, p.277). According to Gagnon & Lexchin, pharmaceutical marketing spending concentrates on sales representatives and sales promotions that includes detailing, sponsorships, free samples, gifts and direct to consumer advertising

HCP's direct contact with pharmaceutical companies is mostly pharmaceutical sales representatives. They are a beneficial source of contact for them who translate favourable experiences with physicians to positive perceptions that lead a solid company image (Scharitzer, 2000 p. 957).

Salespeople have a vital role in the creation of buyer-seller interactions, especially in those that have dyadic, close, interactive, interfaces. Sales representatives play this role in the pharmaceutical industry. Pharmaceutical firms pointed their main marketing capabilities to physicians who have the power to prescribe. HCPs have limited time to keep themselves up to date in their daily practice. They manage a lot of situations and their easiest way to reach information is pharmaceutical sales representatives (Biong, 1996, p. 98) Evans & Beltramini stated that HCPs rated sales representatives more important informant than pharmacists (1986, p. 22). In another study, it is indicated that HCPs perceive sales representatives as a notable source of information (Andaleeb & Tallman, 1996, p. 82).

Continuing medical education is a big part of pharmaceutical companies' interactions with physicians. The company supported seminars, satellites, symposiums and conferences are helping HCPs on providing most accurate, latest and proper treatment to patients (Norris, Holmer 2012). Pharmaceutical companies sponsor to physicians for international and national events such as congresses, satellites, CMEs or clinical trials. The purpose of those sponsorships is supporting the physicians and making them

aware of the latest updates on products, treatments and literature. Those events are very beneficial and important for doctors because they are able to update themselves. Especially, continuous medical educations provide information about side effect management, treatment duration, premedication, treatment or diagnosis (Orlowski, 1992, p. 272).

Ion stated that scientific support the physicians is one of the most effective parts of pharmaceutical marketing and it has a positive effect on prescription behaviour (2013). Scientific supports can be classified as; literature support, detail aids, samples, brochures, company websites, congress sponsorships and medical meetings (Yılmaz, 2008). The company supported symposiums play an informative and social role for physicians. Physicians from different cities find an opportunity to share their experience with their peers and they can listen to medical experts to gain extra knowledge about their field (Goyal & Pareek, 2013, p. 57). Moreover, Orlowski expressed the significance of CMEs at physicians' prescription tendency. Other than that, he stated that sponsored symposiums and congresses are an effective tool for physician's education and it contributes physician's perception of the company in a positive way (1992, p. 272). In a study conducted by McKinney, physicians attitude towards pharmaceutical representatives investigated. Majority of physicians think positive about supporting as a speaker in conferences and scientific platforms by sales representatives (1990).

Although, CME is essential, there are other methods that the pharmaceutical industry can support the physicians. Providing scientific literature and access to clinical trials are other beneficial marketing instruments for HCPs. In the United States, most of the doctors who have the membership of Infectious Disease Society of America finds clinical support very important for the development of themselves (Kunin, 1978, p. 845) In a study executed by Massie & Rothenberg, it is asked if physicians conduct their clinical trial with funding or not. 45% of participants stated that pharmaceutical companies sponsored their trials (1984). A latest study conducted among 40 Canadian healthcare professionals illustrated that most of the HCPs are thankful to pharmaceutical companies on the occasion of clinical research sponsorships (Taylor, 1991).

Ion stated that, regular visits of a PSR is one of the most crucial promotion channel for pharmaceutical companies. Product-related information exchange is made in those

visits and it is very beneficial for physicians to keep themselves up to date (2013). Connelly indicated that one of the most important parts of PSRs' visit is frequency. Their study conducted in Great Britain showed that 93% of participants visited by a pharmaceutical sales representative once a week and they remark that it would be a loss of an important information source if they did not visit by PSRs (1990).

In the light of the literature review, physicians' perception of the pharmaceutical company can be affected through various marketing efforts conducted by the company. According to literature review, this is the first study focuses on a conceptual model that provides a statistical relation between being most liked company and marketing activities of pharmaceutical companies. The suggested model is designed that consists of specific dimensions for this study which is shown in figure 3.1. Three main components are selected to design the model structure. These are personal support, sales force performance and visit frequency and there are three sub-dimensions under sales force performance category which are expertise, interpersonal skills and responsiveness.

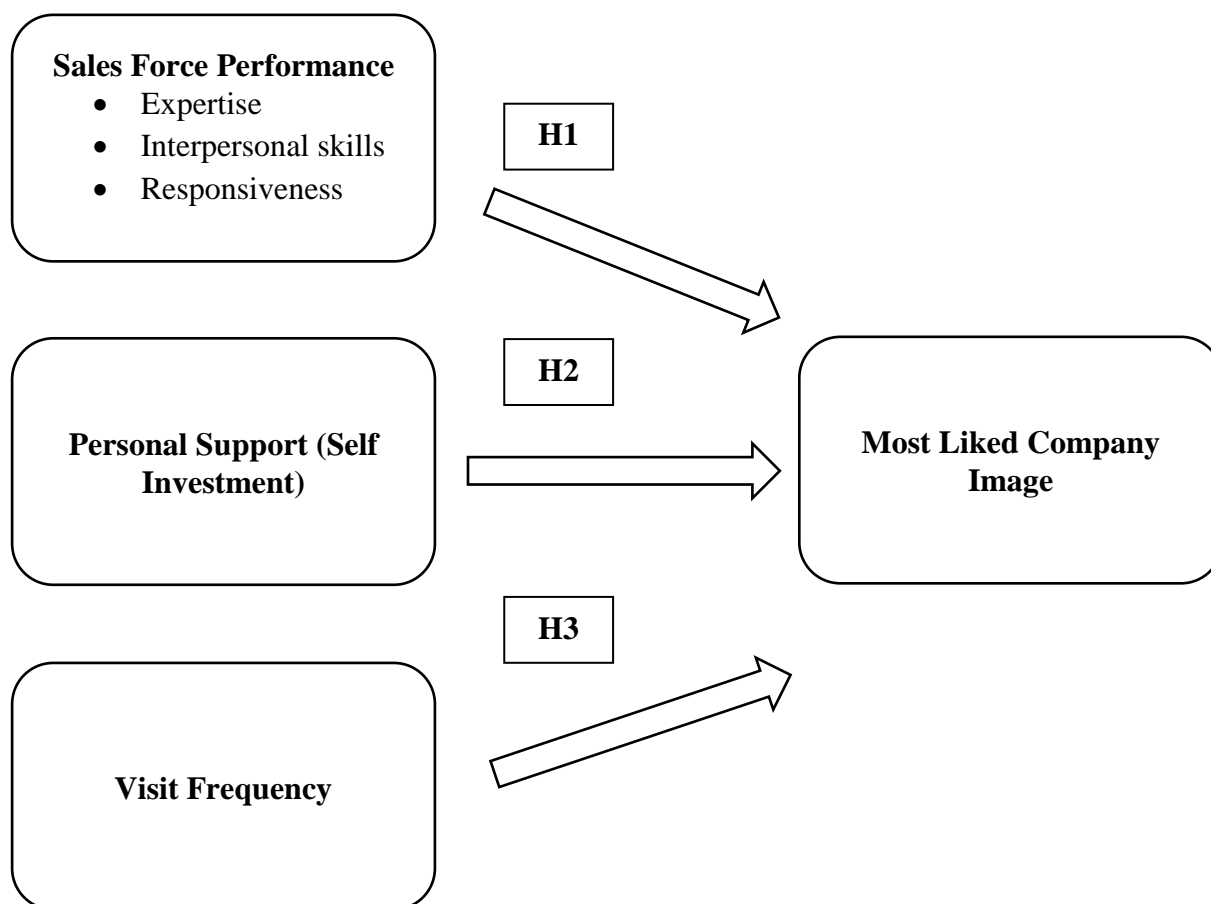


Figure 3.1 : Conceptual Model

Model Hypothesis:

$$k = \beta_0 + \beta_1x + \beta_2y + \beta_3z + \beta_4t + \beta_5w$$

k: Most liked company image in physicians' mind

x: Sales force expertise

y: Sales force interpersonal skills

z: Sales force responsiveness

t: Personal support

w: Sales force visit frequency

H1: The more positively physicians perceive the sales force performance of pharmaceutical company, the more likely they form most liked image of company in their mind.

H2: The more positively physicians perceive the personal support of the pharmaceutical company, the more likely they form the most liked image of the company in their mind.

H3: There is a significant relationship between visit frequency of a pharmaceutical sales representative and most like company image.

In the direction of the literature, sales force activities can be positioned as an important company image determinant in physicians' mind. However, the dimensions of sales force activities vary and those dimensions need to be addressed one by one.

Traditional face-to-face relations of buyer and seller have been determined as one of the most efficient channels in marketing communications. Sales representatives have a crucial role in transferring information to the stakeholders. They are able to touch HCP's perception by force of their professional abilities. They are an active source of pharmaceutical companies for reaching decision makers of the sector (Clark, 2011, p. 147).

Expertise symbolizes experience, capability and knowledge of sales representatives. An empirical study depicts that expertise of the seller has a positive connection with perceived image of the company (Wood, 2008, p. 266) Expertise is characterized as possessing experience, skills or knowledge on a specific subject. An expert sales representative should have a grasp of strong and weak points of products in the market and he/she should convey it without disparaging or misleading. All intentional or unintentional incorrect knowledge sharing has a direct impact on patients' well being and physicians' reputation (Lagace, 1991, p. 43)

Sales representative's expertise brings a sense of credibility in physicians' mind. Credibility and trustworthiness to the information provided by the seller have a direct proportion with satisfaction and satisfaction between the physician and sales representatives reinforce the quality of the relationship (Clark, 2011, p. 147).

H1a: The more positively physicians perceive the expertise of pharmaceutical representatives, the more likely they form the most liked image of the company.

Homburg and Jensen (2007) have interpreted interpersonal skills as the ability of communicating, convincing and managing conflicts. Interpersonal skills of a salesperson are one of the most crucial determinants of performance. It contains skills like overcoming conflicts, understanding the need of the customer, persuading and coping with discussions (Rentz, 2002). On the other hand, it is defined as having a good level of social skills. Interpersonal skills of a salesperson have a direct connection with the trust level of customer. It has been determined that there is a close relation between customer satisfaction and interpersonal skills (Guenzi, 2002). However, there are opposite findings in the literature as well. Wachner, Plouffe & Grégoire have claimed that all sales representatives cannot have the skill of sensing requirements of the customer and act according to it. As a result, the level of interpersonal skills of sales representatives differs from each other and it can not be the same. High level of interpersonal skills bring the features like maintaining an efficient relationship, getting liked by customers and handling conflicts it which makes different in the field (2009). According to Timor & Tuzuner (2006), those circumstances lead to prefer the right sales representative with interpersonal skills of high quality.

H1b: The more positively physicians perceive the interpersonal skills of pharmaceutical representatives, the more likely they form the most liked image of the company.

According to Crosby Responsiveness has defined as readiness and willingness to provide service to the customer. It is beneficial for the stakeholders in terms of managing time. It has been proved that responsiveness has significant importance on psychic matters for customers in face-to-face visits. Representation of willingness to assist a customer in visits is very advantageous for companies. Additional, positive attitudes appertaining to responsiveness were linked outcome perceptions (1990). On the other hand, negative responses of sales representatives cause the perception of

being ignored and weak service which creates an unsatisfied memory in customer's mind (Keaveney, 1995). In a nutshell, responsiveness has an influence on stakeholder's perception of a salesperson (Naylor & Frank, 2000, p. 312).

H1c: The more positively physicians perceive the responsiveness of pharmaceutical representatives, the more likely they form the most liked image of the company.

3.2 The Research Methodology

As stated before this study aims to understand the factors that affect most liked company image. For that purpose, the conceptual model has been formed with the help of literature. It is the first attempt to measure most liked company image by means of sales force performance, personal support (self-investment) and visit frequency. To realise that, numerical and empirical data are needed to be used so that, a conceptual model can be statistically proven. In the direction of those facts, a quantitative research method has been selected. In the next chapters, quantitative research, survey design, data gathering and sampling will be addressed.

3.2.1 Quantitative research

Quantitative research specified as a systematic experiential research of observable phenomena by way of statistical techniques (Given, 2008, p. 8). Babbie describes quantitative research as collecting numerical statistics for the objective of research and interpreting it to support a structured model (2010). This type of research also provides generalization of outcomes that includes great amounts of subjects (Brians, 2011).

3.2.2 Survey design

The survey includes 25 items questionnaire to assess demographic data consisting of speciality, academic title, institution and questions concerning visit frequency, sales force performance and personal support (self-investment). There are 21 items which evaluate sales representatives' expertise, interpersonal skills, responsiveness, personal support of the pharmaceutical company and being the most liked company among competitors. The 5 points Likert scale has been used for first four sets and for the last set a multiple choice question has been asked to participants.

The questionnaire started with demographic questions. Respectively, speciality, academic title and institution of the physician have been asked. After that, most liked

company question reflected the physicians and only one answer has been accepted. Company A has been graded in terms of sales force performance (expertise, interpersonal skills, responsiveness) and personal support in a 5 points Likert scale. Lastly, visit frequency of company A's sales representatives have been measured in three measures. First one is very often that includes frequency of more than once in a week. The second one is often that includes only once in a week or once in two weeks and the last one is seldom that includes once in three weeks or less than once in three weeks.

3.2.3 Data gathering

As mentioned in the previous chapters, the pharmaceutical industry is under strict regulations as compared to other sectors. In the pharmaceutical industry, companies can not promote their drugs directly to the patients. The main contact of the sector is physicians. It is very important how they perceive the firm image in terms of the sales force and company approach. That's why physicians from different specialities selected for the survey.

Physicians have limited time due to their workload. Because of this, the survey kept short so that time can be managed efficiently and participants focus can be kept consistent during the survey. In this research face to face interview method has been used to collect quantitative data from participants and Paper and pencil used to write answers of doctors.

3.2.4 Sampling

The sample of the study consists of 191 physicians from Turkey who are pulmonologists, hematologists, medical oncologists, nephrologist, neurologists, rheumatologists and transplant surgeons. Since the research wanted to be conducted in speciality pharmaceuticals a judgemental sampling method has been used. There was a limited number of physicians who were suitable for these conditions. Face-to-face interviews have been made in different cities in Turkey. The academic title range of doctors is between specialists and professor doctors. Other than that, interviews conducted in three types of institutions which are university hospitals, training and research and private hospitals

4. FINDINGS

191 physicians participated in the survey. The collected data were analyzed with IBM SPSS Statistics program. Respectively, general frequencies, descriptive statistics, factor analysis, Cronbach Alpha reliability test and a binary logistic regression used to test the hypothesis of the study and depict the characteristics of data.

4.1 Characteristics of Responders

Characteristics of participants in the survey will be detailed in the coming chapters.

4.1.1 Speciality of responders

As a first question, speciality of participants has been inquired in the survey. According to answers, physicians have 7 different types of specialities. Medical oncologists have the highest percentages among respondents with %33.5, hematologists and rheumatologists follow them respectively with the percentages of %18.8 and %14.1. The Transplant Surgeons (%2.6) and Nephrologists (%3.1) has the lowest share in the sample. All results about the speciality are shown in Table 4.1.

Table 4.1 : Frequency of Participant's Specialities

	Frequency	Percent	Valid Percent	Cumulative Percent
Pulmonologist	24	12.6	12,6	12,6
Hematologist	36	18.8	18,8	31,4
Medical Oncologist	64	33.5	33,5	64,9
Nephrologist	6	3.1	3,1	68,1
Neurologist	29	15.2	15,2	83,2
Rheumatologist	27	14.1	14,1	97,4
Transplant Surgeon	5	2.6	2,6	100,0
Total	191	100.0	100,0	

4.1.2 Institutions of respondents

Secondly, the institution of respondents has been asked. The distribution of physicians in terms of the institution was reported as training and research hospital (%42.4), private hospital (%8.9) and university hospital (%48.7). The results of institutions are shown in Table 4.2.

Table 4.2 : Frequency of Participant's Institution

	Frequency	Percent	Valid Percent	Cumulative Percent
Training and Research Hospital	81	42.4	42.4	42.4
Private Hospital	17	8.9	8.9	51.3
University Hospital	93	48.7	48.7	100.0
Total	191	100.0	100.0	

4.1.3 Academic titles of respondents

As a last demographic question, participants were asked to specify their academic titles as well. The majority of the physicians are specialist (%46.6). Respectively, associate professors (%26.7), professor doctors (%22.0) and assistant professors (%4.7) are other types of academic titles. The results are shown in Table 4.3.

Table 4.3 : Frequency of Participant's Titles

	Frequency	Percent	Valid Percent	Cumulative Percent
Specialist	89	46.6	46.6	46.6
Assistant Professor	9	4.7	4.7	51.3
Associate Professor	51	26.7	26.7	78.0
Professor Doctor	42	22.0	22.0	100.0
Total	191	100.0	100.0	

4.1.4 Visit frequency of pharmaceutical sales representatives

Respondents were asked about visit frequency of pharmaceutical sales representatives. They indicated visit frequency that they take from pharmaceutical sales representatives. There are 8 different responses. The most common response is “once in a week” with %51.8. Other responses with high percentages are “twice in a week” (%16.8) and “once in two weeks” (%12.6). “Once in two months” (%0.5) and “once in three months” (%1.0) are the lowest preferred responses by physicians.

Table 4.4 : Frequency of Participant’s visit frequency of pharmaceutical sales representatives preference

	Frequency	Percent	Valid Percent	Cumulative Percent
Three times in a week	9	4.7	4.7	4.7
Twice in a week	32	16.8	16.8	21.5
Once in a week	99	51.8	51.8	73.3
Once in two weeks	24	12.6	12.6	85.9
Once in three weeks	12	6.3	6.3	92.1
Once in a month	12	6.3	6.3	98.4
Once in two months	1	.5	.5	99.0
Once in three months	2	1.0	1.0	100.0
Total	191	100.0	100.0	

To ease further analysis, those visit frequencies have been classified into three groups. These are named as “very often”, “often” and “seldom”. Very often consists of three times in a week and twice in a week answers. Often consists of once in a week and once in two weeks answers. Lastly, seldom consists of once in three weeks, once in a month and once in two months answers. Often has the highest percentage with % 64,4. Very often option follows it with %21.5 and finally, seldom option has the lowest rate with % 14.1. The frequency of those groups can be seen in table 4.5.

Table 4.5 : Frequency of Participant's visit frequency of pharmaceutical sales representatives preference.

	Frequency	Percent	Valid Percent	Cumulative Percent
very often	41	21.5	21.5	21.5
often	123	64.4	64.4	85.9
seldom	27	14.1	14.1	100.0
Total	191	100.0	100.0	

4.2 Factor Analysis

Exploratory factor analysis has been performed to construct validity of each scales and to classify large number of variables into small groups. Suitability of data for factor analysis has been checked with the help of the Bartlett Test of Sphericity and Kaiser-Mayer-Olkin (KMO) test. According to Kaiser, the KMO value should be minimum 0.5. Values between 0.7 and 0.8 are accepted as good, values between 0.8 and 0.9 are accepted as great and values greater than 0.9 are accepted as superb (1974). In terms of the Bartlett test of Sphericity, the significant value should be less than 0.05 which means that the data set is adequate for further analysis (Pallant, 2013).

As seen in table 4.6 KMO value is 0.926 and Bartlett test of Sphericity significant value is .000. Those values are acceptable for continuing factor analysis.

Table 4.6 : KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.926
Bartlett's Test of Sphericity	Approx. Chi-Square	2079.249
	df	91
	Sig.	.000

Principal component analyze has been performed to group 14 items. As a result, 3 factors have been found. The cumulative variance of those factors is %75.25 which is sufficient. The interrelations between the components are good. Only “Have a good knowledge about market dynamics and rival products” and “Understands my questions and needs about the treatment” seem to fit into both scales. However, expertise scale is more proper for those components since they are directly related to knowledge.

Factor 1 has named as “interpersonal skills” and it consists of 7 items:

- He/she is trustworthy
- Does his/her job with passion and energy
- He/she is sincere
- He/she has a high level of communication skills and empathy
- The relationship and discussion quality is quite good
- He/she is solution oriented in time of divergencies
- He/she visits me regularly

Factor 2 has named as “expertise” and it consists of 5 items:

- Explains the features of his/her products accurately
- He/she can give information about adverse events, product safety, side effects and literature data
- Understands my questions and needs about the treatment
- Have a good knowledge of market dynamics and rival products
- His/her knowledge is sufficient to meet my needs and queries

Factor 3 has named as “responsiveness” and it consists of 2 items:

- He/she returns my questions and needs as soon as possible
- He/she can be reached easily whenever he/she is needed

According to Buyukozturk, factor loadings between 0.30 and 0.59 can be identified as moderately high. If the factor loading values are greater than 0.60 it can be considered as high (2002). The distribution of factor loading of each item is shown in table 4.7.

Table 4.7 : Factor Analysis of Sales Performance Dimensions

	Component		
	1	2	3
He/she is trustworthy	.819		
Does his/her job with passion and energy	.795		
He/she has a high level of communication skills and empathy	.749		
He/she is solution oriented in time of divergencies	.739		
He/she visits me regularly	.728		
He/she is sincere	.710		
The relationship and discussion quality is quite good	.710		
Explains the features of his/her products accurately		.863	
He/she can give information about adverse events, product safety, side effects and literature data		.784	
Have a good knowledge of market dynamics and rival products	.412	.758	
Understands my questions and needs about the treatment	.480	.754	
His/her knowledge is sufficient to meet my needs and queries.		.673	
He/she can be reached easily whenever he/she is needed			.893
He/she returns my questions and needs as soon as possible			.890
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			

4.3 Reliability Analysis

For Likert-type statements, it is necessary to report Cronbach alpha value for demonstrating consistency and reliability of scales in the survey (Gliem & Gliem, 2003, p. 88). According to George & Mallery (2003), Cronbach alpha value must be greater than 0.7 for being acceptable.

After the reporting validity of scales with factor analysis, Cronbach Alpha test has performed to measure the reliability of scales used in the conceptual model. Respectively, Cronbach alpha scores of “expertise”, “interpersonal skills”, “responsiveness” and “personal support” are 0.911, 0.929, 0.877 and 0.886. All those scores are acceptable in the direction of literature. All scales are consistent and reliable. Cronbach alpha coefficients of scales can be seen in table 4.5.

Table 4.8 : Reliability Statistics

Scale	Cronbach's Alpha	N of Items
Expertise	.911	5
Interpersonal Skills	.929	6
Responsiveness	.877	2
Personal Support	.886	7

4.4 Binary Logistic Regression

Binary logistic has been performed to get an equation for the conceptual model. There are 191 cases in the output and there are no missing values which can be seen in table 4.9.

Table 4.9 : Case Processing Summary

Unweighted Cases ^a		N	Percent
Selected Cases	Included in Analysis	191	100,0
	Missing Cases	0	,0
	Total	191	100,0
Unselected Cases		0	,0
Total		191	100,0

After the results that are given in case summary table, model assessment has been done. -2 Log likelihood value is 124.919. By itself, the value is not informative enough. The p-value of whole model is 0.000 which is less than 0.05, It means that null hypothesis is rejected and there is evidence that at least one of the explanatory variables contributes to the prediction of the outcome. Cox & Snell R square and Nagelkerke R square are both methods of calculating the explained variation. For our model the explained variation ranges from 0.480 to 0.658 depending on whether we reference Cox & Snell R square or Nagelkerke R square, respectively. The mentioned values can be seen in table 4.10.

Table 4.10 : Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	124.919 ^a	.480	.658

Hosmer and Lemeshow test used as a next step to evaluate goodness of fit of our statistical model. In order to decide whether the differences can be explained by chance only, the Hosmer-Lemeshow chi-square test is performed. In table 4. 11 the p-value is given which is 0.064. It is greater than 0,05 and it explains that we fail to reject the null hypothesis.

Table 4.11 : Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	14.762	8	.064

The logistic regression analysis shows that there is a significant influence of interpersonal skills, responsiveness, personal support and seldom visit frequency on getting of most liked company image. The model explained 65.8% variance in being the most like company (Nagelkerke R^2) and was able to identify 84.8% cases accurately. The sensitivity of the model was 72.5% and specificity of the model was 91.8%. The results show that for every unit increase in interpersonal skills, responsiveness, personal support and seldom visit frequency the odds for being selected is 10.4 times, 7.6 times, 2.1 times and 0.14 times respectively. Further,

expertise, very often visit frequency and often visit frequency have not a significant impact on the model. The results are shown in table 4.12.

Table 4.12 : Results of Binary Logistic Regression Analysis

	B	S.E. (B)	Wald	Odd Ratio	95% C.I.for EXP(B)	
					Lower	Upper
Expertise	-.323	.525	.378	.724	.258	2.028
Interpersonal skills	2.346	.676	12.027**	10.439	2.773	39.298
Responsiveness	2.031	.448	20.533***	7.620	3.166	18.342
Personal Support	.742	.276	7.238**	2.100	1.223	3.604
Frequency (Very Often)			4.752			
Frequency1 (Often)	-.380	.637	.357	.684	.196	2.381
Frequency2 (Seldom)	-1.916	.929	4.250*	.147	.024	.910
Constant	-19.520	3.371	33.536***	.000		

*p<.05, ** p < .01, ***p<.001

According to Results, H1b, H1c, H2 and H3 hypotheses supported and H1a hypothesis rejected.

5. CONCLUSION

The pharmaceutical industry goes through an unstoppable transformation with the effect of the latest development in technology and the new came out diseases. While the diseases vary, high technological drugs come into the market for the specific patient population. Speciality pharmaceuticals play a critical role in that matter and it lights the way of too many patients life.

Physicians have a challenging atmosphere circled with new treatments, drugs and information that comes with accelerating pace and pharmaceutical companies try to make physicians' life easier to satisfy their most important stakeholders. In that case, marketing activities differentiate the companies and contribute to their company image directly.

The pharmaceutical industry is a highly regulated and specific sector which includes interesting characteristics and marketing efforts. Pharmaceutical sales representatives are the main marketing muscles of the company and their relationship with physicians shape the perception of physicians to the related company. During the face-to-face visits, features like expertise, interpersonal skills and responsiveness affect the perception of the company. Besides that, the frequency of those visits is another factor that forms the perception of the company.

On the other side, personal support or with other words self-investment of the pharmaceutical companies is vital for physicians' development. Sponsored congresses, CMEs, clinical trials or provided scientific literature contributes to their daily clinical practice a lot.

In the light of that information, this study focused on a model that seeks the relationship between marketing activities of pharmaceutical companies and company image. Salesforce characteristics, visit frequency and personal support components evaluated as a mechanism of action to company image.

The expertise of pharmaceutical sales representatives does not have a significant effect on company image and it does not change physicians perception. Contrary to this, the

interpersonal skills of a pharmaceutical sales representative have a significant impact on company image. It is the most effective feature that affects for having a favourable company image. Besides that, responsiveness is another factor that has a significant influence on company image and it affects the company image positively.

Visit frequency of pharmaceutical representatives classified as very often, often and seldom in this study. Often and very often visit frequency do not have a significant effect on company image in physicians' mind but seldom visit frequency has a negative impact. In other words, visiting a physician less than once in three weeks or only once in three weeks affect to the perspective of company image in a negative way.

Personal support (Self-investment) to physicians is seen as an influential marketing instrument and it has a positive and significant impact on company image decision of physicians.

In summary, pharmaceutical sales representatives characteristics play an essential role in shaping company image in physicians' mind except for the expertise feature. Other than that, physicians find efforts on personal support an influential factor while shaping the company image and lastly, visiting a doctor very often or often do not have any significant impact while seldom visiting has negative.

6. MANAGERIAL IMPLICATIONS

The pharmaceutical industry is a regulated and specific environment that consists of dynamics among patients, governments, insurance companies, pharmaceutical companies and healthcare professionals. Governments and institutions are responsible for creating and executing regulations. On the other hand, patients are the end user but in most countries, they don't have direct access to the drugs. Physicians are the decision makers and pharmaceutical companies directed most of their marketing efforts to them.

In this study, pharmaceutical sales representatives' performance, personal support of pharmaceutical companies and visit frequency of PSRs discoursed as marketing concepts and the relationship between those activities and company image has been investigated in specialty pharmaceuticals sector.

Relationship of pharmaceutical sales representatives with physicians is the most crucial point that the managers need to focus on. It is obvious that all managers pay attention to the selection of pharmaceutical sales representatives and give weight to the education of them. Especially in specialty pharmaceuticals market, high level of knowledge on products, side effects, scientific literature and the related market is expected. However, it is not seen as a distinctive feature that affects company image in a positive way.

Communication skills of the pharmaceutical sales representatives play a critical role during the regular face to face visits with physicians. Doctors expect high-quality conversation, empathy, good communication skills, motivation and sincerity from representatives of companies. Representatives who can be good at those skills bring his/her company one step forward as compared to other companies. Besides that, it leaves a good mark in terms of company image which can turn as an advantage in the competition. Managers should focus on PSR recruitment more than ever and they should invest in PSR training in terms of communication skills.

Another hot topic in the pharmaceutical industry is visit frequency of sales representatives. According to the results of the study, visiting the doctor less than once in two weeks influences company image negatively. Other than that, visiting the doctor as much as possible does not have a significant effect. The doctors want to be visited regularly but in moderation.

Managers should be aware that personal support or self-investment means a lot for physicians and makes a significant difference in terms of having a favourable company image. Speciality pharmaceuticals industry develops with an accelerating pace and keeping yourself up to date is nearly impossible. Supporting doctors with symposia, congress sponsorship, CME, scientific literature or clinical trials have an undeniable effect on physicians. It provides the latest updates in their fields and besides that, they find an opportunity to socialize and discuss with their peers. Other than that, sponsoring the doctors as a speaker in such events contributes their visibility as well. In brief, personal support to physicians is a key marketing activity for companies at shaping a better company image in the market.

Consequently, marketers have to plan their marketing activities wisely. They should concentrate on increasing relationship quality with doctors and invest in developments of them. In that way, they can have a favourable company image and make a difference among their competitors.

7. LIMITATIONS AND FUTURE DIRECTIONS

The study has several limitations. Firstly, not all marketing channels are able to be included. Especially digital channels and free drug samples were not included. For further studies, all marketing muscles that create interaction with physicians should be included to specify most effective channels at shaping a favourable company image and our study can be developed. Other than that, the relationship dimensions of pharmaceutical sales representatives can be increased. Factors like similarity or likeability can be added to the research as scales.

Secondly, the study designed one company oriented. For further researches, the design can be changed to include all companies so that the results can be generalized.

Thirdly, the study focused only on the effects of marketing efforts of the pharmaceutical companies to understand company image in physicians' mind. However, features like product quality or patient experience cannot be measured. For further studies, all factors can be linked to each other. In that way, a total understanding of company image determiners can be developed.

Lastly, our study could not investigate the relationship between a favourable company image and its impact on sales. For further analysis, for long period marketing efforts of different companies can be followed and then it can be linked with the change in the number of sales. In that way, the advantage of a positive company image can be proved in terms of sales and marketing efforts that are directly related to company image can be developed with the help of this and similar studies.

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APPENDICES

APPENDIX A: The Questionnaire

1. Uzmanlığınızı belirtiniz.

1. Transplant Cerrahı
2. Nefrolog
3. Hematolog
4. Medikal Onkolog
5. Nörolog
6. Erişkin Pulmonolog
7. Romatolog
8. Pediyatrik hematolog (Hemofili alanı için)

2. Ünvanınızı belirtiniz.

1. Profesör Dr.
2. Doçent Dr.
3. Yrd. Doç. Dr.
4. Uzman Dr.
5. Yandal Asistanı/Fellow

3. Çalıştığınız kurum türünü belirtiniz.

1. Özel hastane
2. Devlet Hastanesi
3. Üniversite Hastanesi
4. Vakıf Üniversitesi Hastanesi
5. Eğitim Araştırma Hastanesi
6. Diğer (Belirtiniz).

4. Adı geçen firmanın ürün tanıtım temsilcilerini için aşağıdaki özellikleri değerlendiriniz.

	Hiç başarılı değil	Başarılı değil	Ne başarılı ne değil	Başarılı	Çok Başarılı
Tedaviye yönelik sorularımı ve ihtiyaçlarımı anlaması	1	2	3	4	5
Kendi ürününün	1	2	3	4	5

özelliklerini doğru aktarabilmesi					
Bilgi seviyesinin soru ve ihtiyaçlarıma cevap verebilecek düzeyde	1	2	3	4	5
Ürün güvenliği / yan etki / advers olaylar ve verilerle ilgili bilgi verebilmesi	1	2	3	4	5
Rakip ürünlere ve pazar dinamiklerine hakim olması	1	2	3	4	5
Düzenli ziyaret etmesi	1	2	3	4	5
İletişim becerisinin ve empati yeteneğinin yüksek olması	1	2	3	4	5
Hemfikir olmadığımız konularda çözüm odaklı yaklaşması	1	2	3	4	5
İşini tutkuyla ve enerjiyle yapması	1	2	3	4	5
Gerektiğinde kolaylıkla ulaşılabilmesi	1	2	3	4	5
Samimi olması	1	2	3	4	5
Güvenilir olması	1	2	3	4	5
İlişkilerin ve tartışmaların kaliteli bir	1	2	3	4	5

düzyeyde olması					
Sorularıma ve ihtiyaçlarıma hızlı dönüş yapması	1	2	3	4	5

5. Adı geen firma iin ařağıdaki zellikleri deęerlendiriniz.

	Hi başarılı deęil	Başarılı deęil	Ne başarılı ne deęil	Başarılı	ok Başarılı
Kongre desteęi	1	2	3	4	5
Bilimsel veri ve literatr desteęi	1	2	3	4	5
Yeni başlayacak klinik alıřmalara katılımla ilgili destek olması/ fikir vermesi	1	2	3	4	5
Yurtdıřı kliniklerde eęitim fırsatı	1	2	3	4	5
Ortak projelerde iřbirlięi yapmak	1	2	3	4	5
Bilgimi, tecrbemi aktarabileceęim platformların yaratılması	1	2	3	4	5
Bilimsel platformlarda konuřmacı olarak desteklenmek	1	2	3	4	5

6. Adı geen firmanın rn tanıtım temsilcisinin ziyaret sıklıęını belirtiniz.

Ziyaret Sıklıęı	
Haftada 3	1

Haftada 2	2
Haftada 1	3
2 Haftada 1	4
3 Haftada 1	5
Ayda 1	6
2 Ayda 1	7
3 Ayda 1	8
6 Ayda 1	9
Yılda 1	10
Ziyaret Almıyorum	99

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- **B.Sc.:** 2015, Yıldız Technical University, Faculty of Chemical and Metallurgical Engineering, Metallurgical and Material Engineering
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PROFESSIONAL EXPERIENCE AND REWARDS:

- Business Insight Analyst, Roche Turkey
- Commercial Excellence Trainee, GlaxoSmithKline