

THE DETERMINANTS OF BRAND ADVOCACY BY HEALTHCARE PROFESSIONALS: AN INVARIANCE ANALYSIS OF DOCTORS VS PHARMACISTS

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DECLARATION

"I declare that the Field Study hereby handed in for the qualification Master in Business Administration at the UFS Business School at the University of the Free State is my own independent work and that I have not previously submitted the same work, either as a whole or in part, for a qualification at/in another university/faculty.

I also hereby cede copyright of this work to the University of the Free State."

Name: Alwyn Vorster

A handwritten signature in black ink, appearing to read 'Alwyn Vorster', with a stylized, cursive script.

Date: 20 November 2014

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Abstract

Over the last decade the pharmaceutical market has become increasingly more competitive mainly due to cheap generic medicine imports from countries like India. Well-known branded companies have dominated the pharmaceutical market for the last century, but now find themselves battling against generic companies simply because they cannot manufacture at the same low costs. Original brand companies can only restrict generic companies by maintaining and improving the relationships which were created with their business-to-business customers over the past 100 years. Creating brand advocates of a company's brand and product will be the ultimate objective of original brand companies in the current environment. Brand advocacy is one of the very few reasons why business-to-business consumers still prefer well-known brands over the cheaper generics. Doctors and pharmacists are seen as the business-to-business customers of pharmaceutical companies. However, doctors and pharmacists do not conduct their businesses in the same manner, and it is plausible that different techniques will need to be used to create brand advocacy. Therefore, the research question is not only what factors influence brand advocacy by doctors and pharmacists, but are the factors that influence brand advocacy behaviour invariant between doctors and pharmacists?

An empirical study has been conducted in order to identify the factors that influence brand advocacy by doctors and pharmacists. Data were obtained by applying a quantitative approach to data gathering. A non-probability sample was used with the sample population consisting of doctors and pharmacists scripting and recommending pharmaceutical products on a daily basis.

Overall the predictive validity of both the doctor and pharmacist models was good. In the pharmacist model the empirical results supported nine of the twelve hypothesized determinants of brand advocacy, while in the doctor model seven of the twelve hypothesized determinants were supported. It was also established that there are differences between the hypothesized determinants of doctors and pharmacists.

It can be concluded that brand advocacy does in fact play an important role in influencing brand advocacy by doctors and pharmacists. However, it can also be concluded that the different determinants of brand advocacy are germane between doctors and pharmacists. Pharmaceutical manufacturers need to use different processes and strategies of creating brand advocacy by doctors and pharmacists. Manufacturers need to tailor the strategy according to the specific determinants that have the biggest influence on brand advocacy for either a doctor or a pharmacist.

Chapter 1: Introduction

1.1 Introduction

The current competitive state of the global pharmaceutical market has forced manufacturers to adapt and be more innovative. This innovation coupled with the low barriers of entry in emerging markets have increased the expected growth rate of the global market from 5% to 8% in 2014. Emerging markets are expected to grow by 16% in 2015. Business Monitor International has identified South Africa as a fast-emerging pharmaceutical market (Pharmaceutical, Life Sciences and Biotechnology 2012).

The generic drug market in South Africa was worth ZAR7.94bn in 2011 and is expected to increase to ZAR14.25bn by 2016. In 2011 the generic medicine market reached 50% share of medicine sales in South Africa. The main reason for the market share increase of generic medicines is the low cost of generic medicines. Generic medicines can be between 30 to 80% cheaper than original medicines. Another contributing factor is medical aid schemes that only cover the cost of generic equivalent products (Pharmaceutical, Life Sciences and Biotechnology 2012).

Well-known brand companies face pressure to adapt to the evolving patient needs and long-term trends in the market place (Pharmaceutical, Life Sciences and Biotechnology 2012). The implementation and maintenance of effective business-to-business relationships with key stakeholders plays a very important role in the modern pharmaceutical industry. The most important stakeholders for manufacturers of pharmaceutical products in South Africa are the medical practitioner and the pharmacist. General practitioners and pharmacists form the direct link between the manufacturer and the consumer. Doctors and pharmacists are responsible for the scripting, recommending and promoting of the manufacturer's product (Pharmaceutical, Life Sciences and Biotechnology 2012).

The aim of the study is to determine whether the determinants of brand advocacy are invariant between doctors and pharmacists. This chapter will give an overview of brand advocacy in the pharmaceutical industry and why it plays an important role in a business- to- business context. This will be followed by stating the research problem

regarding the invariance of determinants of brand advocacy between doctors and pharmacists. The primary and secondary objectives of the study are also identified. A short description on the research methodology will follow which includes the sample size and type, data collection and analysis plan.

1.2 The Role of Branding in the Pharmaceutical Industry

Over the last decade the pharmaceutical industry has witnessed many changes in the external environment that have directly influenced the way stakeholders conduct their business activities. The most predominant changes are price competition, government regulations and imports from Europe. Generic products imported from countries like India have placed great pressure on original brand companies. Original brand companies are now realizing the importance of brand advocacy as they cannot compete with the low prices of imported medicines. Brand advocacy is one of the few reasons why business-to-business consumers still recommend well-known brands over the cheaper alternative (Griffiths, 2007:113).

Kannitz & Burmann (2012:309-310) reported that a high volume of brand patents will be expiring in the near future. This will create more opportunities for manufacturers of pharmaceutical products to develop new generic products. The new generic products may very likely capture market share from companies who develop the equivalent non-generic product. To counter the influence of generic products on market share, manufacturers of non-generic products must invest in developing brand advocates out of stakeholders such as physicians and pharmacists.

According to Griffiths (2007:114-116) pharmaceutical companies used to market products rather than medicines, and it is here where the important role of the sales representative comes into play. These representatives must have the ability to communicate certain brand messages in such a way that brand equity is created. Griffiths (2007:114-116) implies that healthcare professionals do in fact relate more with certain brands than others. General practitioners tend to be loyal to a brand when they

believe it will add extra value to their patient, thus blocking the external factors imposed by cheaper generic products (Griffiths, 2007:114-116).

Theories of pharmaceutical brand management have shown that healthcare professionals have a different point of view when looking at a pharmaceutical product and a pharmaceutical brand. They see the product as only adding a certain efficacy while the brand supports the efficacy with a certain personality. This establishes additional value and increases differentiation when compared to competitor products. (Kannitz & Burnmann, 2012:311).

1.3 Brand Advocacy

Brand advocacy in the business-to-business context can be defined as the extent to which retail sales associates recommend and prefer a given brand in a product category over another similar brand (Badrinarayan & Laverie, 2013:59). By conducting such behaviour these retail sales associates have become brand advocates.

Brand advocates are individuals who had a number of positive experiences with a specific brand. These positive experiences created a high degree of reliability and loyalty towards a company and its brand. These advocates will recommend, share their experience and voice their appreciation towards a brand without expecting anything in return (Rusticus, 2006:47).

Research published by the London School of Economics indicates that strong advocacy on behalf of a company and its brand is one the best predictors of top-line growth. This can be seen when looking at long time trends followed by successful companies like P&G, Apple and Coca-Cola. These companies have mastered the art of forming a strong link between brand advocacy and the growth of their brands (Keller, 2007:448-449).

Badrinarayan & Laverie (2013:59-60) identify the building of customer relationships as an essential part in the process of creating brand advocates. Most organisations now structure their sales force around business relations rather than focusing on their product or service. Organisations also rely extensively on their salespeople to bridge the gap between organizational boundaries in order to communicate with key individuals in partner organizations. These interactions promote relationship-building activities and assist in the forming of brand-centric relationships. According to Badrinarayan & Laverie (2013:59-60) brand advocacy is a critical outcome of brand-centric relationships.

When relationship-building activities are done in a constant and successful manner it will ultimately increase the trust and commitment of a stakeholder on a product. Trust and commitment are not only seen as the most important binding factor of effective interorganisational relationships, but are also positively related to brand advocacy (Badrinarayan & Laverie, 2013:59-60).

1.4 The Impact of Brand Advocacy

The degree of volitional information sharing such as making recommendations, suggestions and word-of-mouth communication is positively linked to brand advocacy. Therefore it will be fair to assert that when a stakeholder is committed to a manufacturer's brand, the likeliness exists that he/she would demonstrate brand advocacy on the part of the company and its brand (Badrinarayan & Laverie, 2013:59-60).

Current researchers are placing huge emphasis on brand advocacy as a very important tool in relationship marketing. The fact of the matter is that strong brand advocates will give favourable recommendations which in turn will win over new consumers. Companies that go the extra mile to create connections with their business-to-business customers will reap the excellent rewards of word-of-mouth (Fullerton, 2005:100).

Agrawal & Gaur (2012:275-276) are of the opinion that brand advocates will in most instances purchase and recommend additional goods or services of the same company. Studies also suggest that brand advocates tend to speak up when they have a certain problem with quality and service and this gives a company the chance to redeem themselves. Brand advocates need less assistance in using the specific product as their level of commitment has increased their knowledge and efficacy.

According to Fullerton (2005:101) advocacy plays a vital role in the customer's commitment to a marketing relationship. "Affective commitment has been shown to have a positive impact on prosocial behaviors while continuance commitment undermines prosocial behaviors (Allen & Meyer, 1990)". An individual will go the extra mile for a company or brand he/she strongly relates to and wants to be part of his/her success. People will act as reference customers for a brand to which they feel psychologically attached.

1.5 Research Questions

The pharmaceutical industry is one of the most profitable industries in the modern world today, but at the same time it has become one of the most competitive industries. Well-known brand companies who used to dominate the pharmaceutical industry in the past are now faced with enormous marketing and innovation challenges (Ding et al.2014:2). Expired patents and generic drug companies from Europe have created many challenges for the original brand companies merely due to their low pricing strategies. Brand companies without strong marketing and innovation capabilities cannot stay competitive forcing a higher number of manufacturers to close down or merge with successful firms. Firms need to adapt to these changes and personalise their brands in such way that it prohibits the generic drug from success (Ding et al.2014:2).

In this study the prescribing of a pharmaceutical brand's products by doctors and the recommendation of a brand's products by a pharmacist constitutes brand advocacy. Ultimately, pharmaceutical companies would like doctors and pharmacists to prescribe and recommend their products. Thus, it is imperative for pharmaceutical companies

manufacturing original drugs to facilitate brand advocacy among doctors and pharmacists. If companies are not successful in achieving brand advocacy the doctor and pharmacist are likely not to prescribe or recommend their products to patients and clients.

In developing strategies to enhance brand advocacy among doctors and pharmacists the point of view can be adopted that the formation of brand advocacy between the two types of stakeholders are invariant-the same factors that influence brand advocacy behaviour among doctors also play a role in the advocacy behaviour of pharmacists. But this assumption may not hold for the following reasons: a doctor does not make a profit on the product that he prescribes, whereas the pharmacist does. The pharmacist can make his recommendation decision based on various elements like promotions, availability, rebates and profit margins. It is more likely that the doctor will prescribe the best suited treatment for the patient, and will not be influenced by elements like profit margins and rebates. Therefore, the research question is not only what factors influence brand advocacy behaviour by doctors and pharmacists, but more specifically whether the factors that influence brand advocacy behaviour for doctors and pharmacists are germane.

To conclude, the research question that guides this study is “Are the factors that influence brand advocacy behaviour invariant between doctors and pharmacists?”

1.6 Objectives of the Study

1.6.1 Primary Objective

The aim of the study is to determine whether the key determinants of brand advocacy are invariant between doctors and pharmacists.

1.6.2 Secondary Objectives

- To identify the key determinants of brand advocacy from literature;
- To develop a model of brand advocacy in the business-to-business environment;
- To empirically assess if the determinants of brand advocacy for doctors and pharmacists are invariant across the two stakeholders;
- To make recommendations to marketing managers of original pharmaceutical products on how to enhance brand advocacy by doctors and pharmacists.

1.7 Research Methodology

The target population for the study were medical practitioners and pharmacists. In order to participate in the study, the respondents had to recommend or script pharmaceutical brands to patients and clients on a daily basis. Data were obtained by applying a quantitative approach to data gathering, which consisted out of a questionnaire. The sampling method consisted out of non-probability sampling and the sample was drawn out of 200 medical practitioners and 200 pharmacists practising in South Africa.

The scales that were used to measure the constructs in the study were adapted from previous studies. The researcher made use of a 7-point Likert-type scale (1=strongly disagree, 7=strongly agree) to measure the importance of different variables of brand advocacy which were identified in the model developed in chapter 3.

To test the hypotheses, a structural equation modelling process using a partial least squares (PLS) analysis was adopted. The variance-base PLS procedure was used because PLS is robust to deviations from normality and provide stable estimates when using a small sample size.

1.8 Outline

Table 1.1 Chapter Outline

Chapter	Title	Objective of the chapter
Chapter 1	Introduction	To introduce the background and purpose of the study
Chapter 2	Pharmaceutical industry background	To give an overview of the history of the pharmaceutical industry
Chapter 3	Determinants of brand advocacy in medical professionals	To identify factors that influence brand advocacy by doctors and pharmacists. To discuss the hypotheses.
Chapter 4	Research methodology	To explain the research methodology used in the study to realise the primary objective of the study
Chapter 5	Empirical results	To present the results of the study
Chapter 6	Conclusion and recommendations	To discuss the findings of the research, draw conclusions from the findings and make recommendations on how pharmaceutical companies must approach the different processes of creating brand advocates between doctors and pharmacists

1.9 Conclusion

This chapter served as an introduction to the study. It provided a background as to how and why this research question has been developed and points out the possibility of invariance between the determinants of brand advocacy by doctors and pharmacists. This chapter also provided the structure for the rest of the study which will help to determine the study objectives.

Chapter 2: Background of the Pharmaceutical Industry

2.1 Introduction

The purpose of this chapter is to provide an overview and background on the pharmaceutical industry. The chapter will start off by looking at the history of the pharmaceutical industry and how it evolved over the years. Focus will also be placed on why this industry was so highly profitable between the years of 1980 and 2000.

By the turn of the millennium the pharmaceutical industry became drastically more competitive. This chapter will also identify the environmental changes that were greatly responsible for the industry becoming more competitive. The chapter will conclude by giving an overview of the current global state of the pharmaceutical industry. Market share per industry region will be highlighted, and the top ten companies of the industry will be identified.

2.2 The History of the Pharmaceutical Industry

1700 - 1800

According to Chemical & Engineering News (2005) the modern pharmaceutical industry can trace its existence back to two sources: apothecaries companies and dye and chemical companies that operated in the 18th century. At the start of the 19th century these companies evolved their businesses and established research laboratories which enabled them to discover medical applications for their products. By the mid 19th century drugs such as morphine, quinine and strychnine moved into wholesale production (Chemical & Engineering News 2005).

Pharmaphorum (2010) reports that in 1827 the German company Merck, was the first company to move into the direction of wholesale medicine production. The company was founded in Darmstadt in 1668. It was however GlaxoSmithKline who established the world's first medicine only producing factory in 1859.

Pfizer who is the current market leader in the pharmaceutical industry was founded in 1849 in the USA by two German immigrants, and was also initially a chemical business. The start of the civil war saw the company expanding at a phenomenal rate due to the high demand of painkillers and antiseptics (Pharmaphorum 2010).

1900 - 1950

The next remarkable breakthroughs in the pharmaceutical industry came during the interwar period between 1919 and 1938. Scientists in collaboration with pharmacists managed to isolate insulin which could be used to treat diabetes. Before this remarkable discovery the disease of diabetes was seen as fatal (Pharmaphorum 2010).

Shortly following the discovery of insulin an even more remarkable discovery followed of which the impact is possibly unparalleled by any other medicine. Penicillin and its antibiotic properties were discovered in 1928 by Alexander Fleming. Shortly after the discovery companies like Pfizer, Merck and Squibb started with mass production of the drug which ended up saving thousands of soldier lives (Pharmaphorum 2010).

1950- 1970

This era in the history of the pharmaceutical industry can be marked by the arrival of social healthcare systems. These healthcare systems provided structure for the processes of prescription of drugs and their reimbursement (Pharmaphorum 2010).

According to Pharmaphorum (2010) this period was labelled the “golden age” of drug development as the science-boosting competition of the cold war and the strife for better living standards fuelled technological optimism. This could be seen in the success of companies like Pfizer who broadened their business over nine new countries in 1951 alone. The first contraceptive pill was introduced in 1960 which almost had the same impact as penicillin. Anti-depressants and antipsychotic medicines also entered the market in this period (Pharmaphorum 2010).

1970

The 1970's were marked by America's war on cancer which led to the development and manufacturing of a wave of new cancer treatments. Since then cancer survival rates have doubled owing to the high amount of resources and time spent on oncology medicines (Pharmaphorum 2010). Paracetamol and ibuprofen were developed in 1956 and 1969 respectively, and can today be found in most of the current pain medicines.

1980 – 2000

VentureNavigator (2007) reports that between 1980 and 2000 the average profit margin of the Fortune 500 pharmaceutical companies was two times greater than the median of other Fortune 500 industries. The pharmaceutical industry's profitability was three percentage points higher than its comparable industries. In 1999 the industry ranked at the top in all three of the Fortune magazine's measures of profitability. These three measures consisted of return on sales, return on assets and return on equity (VentureNavigator 2007).

2.2.1 Reasons for High Profitability of the Pharmaceutical Industry between 1980 and 2000

2.2.1.1 Threat of entry

Even though the pharmaceutical company was the most profitable of all manufacturing industries in this period, it was also one of the industries with the highest expenditure. These heavy expenditures on research, development and regulatory requirements led to an increase of barriers to entry in the market (Mullins 2006). This made it easy for well established companies like Pfizer who had the capital and resources available to use for these procedures. The same could not be said for potential new entrepreneurs in the market.

Mullins (2006) reports that during this period a company spent on average \$194 million on the development of a single drug. The long and tedious process of developing a new drug also lasted for about 12 years. Existing companies also spent millions of dollars on sales and marketing endeavours in order to promote their drugs to hospitals, pharmacies and doctors.

Another factor which helped to increase the barriers of entry was the patent rights that companies had over their drugs. This prohibited potential competitors from manufacturing a similar drug with the same chemical composition for a period of at least 17 years (Mullins 2006).

2.2.1.2 Supplier Power

According to Mullins (2006) suppliers of raw material in the pharmaceutical industry had absolutely no power during this era. In 1982 the USA alone had 12,000 chemical companies all eager to sell their products to a very strong and profitable industry. The high availability of sources and the fact that these chemicals had very long shelf lives gave the pharmaceutical companies the opportunity to shop around for the best price. The suppliers were left with almost no power to set the terms and conditions of their services (Mullins 2006).

2.2.1.3 Buyer Power and threat of substitutes

Mullins (2006) reports that buyer power was another force that worked into the favour of the pharmaceutical industry. During the period of 1980 to 1999 people had very little knowledge about pharmaceutical products. Doctors prescribed brand-name drugs to obtain the most medically effective solution, and the patients trusted their doctors. This made them insensitive to price. Patent rights and the high costs of introducing new drugs meant that there were very little competition and substitute brands in this period (Mullins 2006).

2.2.1.4 Competitive Rivalry

Although there were already hundreds of pharmaceutical companies operating successfully by the start of 1980, no one of them had more than 5 per cent market share (Mullins 2006). Focusing on one class of treatment showed ample growth potential and these companies had no incentive to move over to other classes of drugs. This meant that each of these companies functioned in their own niche of treating diseases. Therefore competitive rivalry was almost nonexistent and the companies could raise their prices as they pleased (Mullins 2006).

2.3 The Effects of the Ever Changing Environment on the Pharmaceutical Business in the 21st Century

Like all other industries in the world, the pharmaceutical industry could not stay static for ever. Factors like new technology, more dynamic work forces and a consumer base that are more involved caused the industry to change dramatically.

2.3.1 Threat of entry

According to Mullins (2006) by the end of the 20th century barriers to entry in the pharmaceutical industry started to crumble. New legislation was the starting point of this which made it easier for new generic companies to enter the industry. This new legislation gave potential new companies the chance to develop drugs that are similar to that of well-known branded company drugs. In order for their drug to be approved they only had to be able to prove that the formulas of their drugs were similar to those of the branded company. This eliminated the costly process of going through safety and efficacy procedures which only the established companies could afford at the time (Mullins 2006).

Pmpconnect (2008) indicates that a multiple of new generic companies opened their doors over the last 15 years due to the lower barriers of entry. Some of these companies created their own unique drugs, but the fact of the matter is that generic drugs enabled them to enter the market in the first place. In order to combat the appearance of all these new generic drugs, branded companies also started to create their own generic products. By doing this these companies played their part in drowning the pharmaceutical market (Pmpconnect 2008).

2.3.2 Buyer power and threat of substitutes

Pmpconnect (2008) identifies doctors, pharmacies, hospitals and patients and their families as buyers in the pharmaceutical industry. Before the 21st century the pharmacy market was run merely by independently owned pharmacies. The pharmaceutical companies sold their products to literally thousands of independent pharmacies. This meant that these pharmacies had very little buyer power. These days the pharmacy market is being taken over by corporate companies which already control over 50 per

cent of the market. In South Africa Dischem and Clicks are good examples of this. These companies have great amounts of buyer power, when they decide to take a manufacturer's product off their shelves it could greatly affect profitability.

The high increase of new pharmaceutical companies in the industry has created a multitude of substitute products per drug category. This has increased the buyer power of both the medical professional and the patient as they can now shop around for the best cost effective solution (Pmpconnect 2008).

The turn of the century is also recognized by the value of information that the internet provides. By 2002 there were already more than a 100, 000 health related websites. These sources enabled consumers to become more knowledgeable, informed and, consequently, more powerful (Mullins 2006).

2.3.3 Rivalry between competitors

According to Pmpconnect (2008) the top 20 companies and products in the pharmaceutical industry are all but stagnant. The top 20 constantly change on a monthly basis which indicates a very competitive market. These positions are strongly determined by price wars, high cost marketing campaigns and new product launches (Pmpconnect 2008). Mullins (2006) indicates that in order to gain advantage of economies of scale many companies merged. This created even stronger rivalry amongst companies, as their areas of expertise started to overlap.

2.4 Macro Environment Factors

2.4.1 Economic Factors

According to Barei et al. (2012) the downturn of the economy has seen many manufacturers of pharmaceutical goods spend fewer resources on costly radical innovation of drugs. In order to stay profitable and competitive companies were forced to improve their product portfolios through incremental innovation. Incremental innovation is when a company takes an existing product and makes slight adjustments

and changes like packaging, manufacturing and drug formulation (Barei et al. 2012). Not only is this way of innovation cheaper, but also saves a lot of time.

The economic situation not only influenced the manufacturers but also the consumers. Medicine can only save a person's life if the person can afford the medicine. That meant that the generic manufacturers were actually helped by the downturn of the economy. Consumers started moving over to cheaper lesser known generic drugs (Barei et al. 2012).

2.4.2 Social Factors

The present day patient is not satisfied with only receiving a drug for treatment of a disease. They want health solutions and expect more adherence and compliance support from their medical professional and manufacturer of the treatment (Kumar 2011). The high availability of health information provided by the internet has transformed the patient from a passive receiver of treatment into a shareholder of managing their own health. These consumers compare, discuss and research treatments to identify the best cost-effective solutions (Barei et al. 2012). Another social factor influencing the pharmaceutical industry is the trend of living a healthier lifestyle in order to combat and prevent potential future diseases.

In order to stay competitive pharmaceutical companies need to evolve from treatment providers into treatment partners with their business to business clients and consumers (Kumar 2011).

2.4.3 Technological Factors

Smart phones and other 3G devices – According to industryweekly (2013) smart phones and other 3G devices have dramatically changed the way that pharmaceutical companies communicate with their business to business customers. These devices can be updated and edited in an instant and have replaced the traditional way of detailing a product of a catalogue (industryweekly 2013). Not only have these devices made the life of a representative easier, but it also gives the company new innovative ways to engage with their consumers. In the past the patient was prescribed with a treatment and no real feedback was received. Applications on 3G devices now enable the patient to

share his experiences and give feedback on a daily basis. An example of such an application is a heart rate monitor which can identify erratic heartbeats, and could warn a patient of a potential heart attack (industryweekly 2013).

Big Data – Technology over the last couple of years has provided the industry with a mass of new information tools which can be used to the benefit of a company. It is now possible to get daily updates on how your products are selling versus competitor products (industryweekly 2013). Reports can be pulled on a daily basis to see what drugs a medical practitioner is scripting. All these tools can assist a company in determining the success rate of their sales force. However this can also make a company vulnerable to price and promotions wars, merely owing to the fact that any of its competition can pick up on their trends (industryweekly 2013).

Pharma gets social – New information technology has evolved the pharmaceutical consumer from a passive receiver of treatment to an engaged partner in looking after his health (industryweekly 2013). Some companies have braced this by creating social communities online, where patients can interact, give feedback and advice on their treatment. This is an excellent way to interact with your consumer in order to establish what kind of treatment trends and patterns works the best. However, social media also give the consumer the ability to speak his mind when he is not happy. Complaints can now be published and seen by thousands of other people which can be very damaging to a company's reputation (industryweekly 2013).

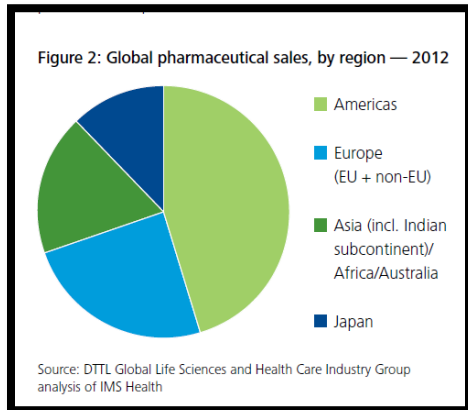
2.5 The Global Pharmaceutical Outlook

2.5.1 Global Market Share

Delloitte (2014) indicates that globally the pharmaceutical industry generated a total revenue of \$959.0 billion in 2012. The market grew by 2.4 percent from 2011 to 2012. Some of the major contributors to these figures are oncology, pain management, hypertension, diabetes, mental health and respiratory problems.

When looking at the different geographical regions, the American region accounts for the biggest global market share at \$417, 6 billion (Delloitte 2014). The market share of the other regions can be seen in the diagram below.

Figure 2.1: Global Pharmaceutical Sales



2.6 Top Five Pharmaceutical Companies 2014

5. Merck & Co: Is an American based company, but develops new treatments and therapies regularly in order to improve the health of people all over the world. In 1950 a program was developed to help people who can't afford medication, Merck was one of the very first companies to give their support in this matter. Their focus area is vaccines, biological therapies and animal health products (listtoptens 2014).

4. Johnson & Johnson: The company was established in 1886 and is US based. Despite being a top pharmaceutical company they are also successful in the production of consumer packed goods. Treatments fields include orthopedics, diabetic care, cardiovascular, aesthetics, infection and sports medicines (listtoptens 2014).

3. Roche: Fritz Hoffman-La Roche founded the company in 1896 in Basel, Switzerland. The company started off by focusing on the development of vitamin products and was the first company to produce synthetic vitamin C in 1934. They focus on creating medical care which would increase the life expectancy of people. Roche is an industry

leader in synthesis of innovative drugs for cancer treatment. Central nervous system disorders, viral infections, inflammatory and metabolic disorders are some of their other focus areas (listtoptens 2014).

2. Novartis: This Swiss based company had revenue of \$46.806 billion in 2010. What makes this company different from the other top five companies is the fact that they are still a very young company. The company was only established in 1996 when the two companies; Ciba-Geigy and Sandoz merged. They operate in 140 countries over the world and their success can be attributed to the successful marketing of their innovative brands (listtoptens 2014).

1. Pfizer: Another US based company founded in 1848 by Charles Pfizer and Charles Erhalt. At first the company only specialized in the manufacturing of chemicals. In 1950 they discovered Terramycin which started off their journey as one of the most successful pharmaceutical companies of all time. Pfizer operates in the medical fields of oncology, inflammation, immunology, cardiovascular, pain and neuroscience. However it is their innovation in creating treatments for the scariest of diseases like cancer and Alzheimer which makes them the best pharmaceutical company in the world. Pfizer also ensure their success by optimally utilizing their global resources and modern science (listtoptens 2014).

2.7 Conclusion

The purpose of this chapter was to give an overview of the pharmaceutical industry. The chapter started by discussing the history of the pharmaceutical market and reasons why the industry is so profitable. The chapter also focused on the current competitive state and macro economic factors influencing the pharmaceutical industry. In conclusion it looked at the top 5 pharmaceutical manufacturers in the world.

Chapter 3: Determinants of Brand Advocacy in Medical Professionals

3.1 Introduction

In the pharmaceutical industry salespeople are the direct link between manufacturers of pharmaceutical brands and medical professionals like pharmacists and doctors. It is the role of the salesperson to effectively inform, convince and commit a medical professional to a specific pharmaceutical brand.

Medical professionals see a number of patients every day with different kinds of symptoms that need to be treated. Their first objective is to identify the source of the problem after which they need to make a recommendation on what brand of medicine would be the best to rectify the problem. The medical salesperson plays a vital role in convincing the medical professional that he/she can provide him with the best suited product on the market. However the process does not end here, the salesperson must ensure that he/she commits the professional to maintain the business relationship and be a brand advocate of the involved firm.

To assist in realizing the primary objective of the study, the objective of this chapter is to develop a theoretical model of the determinants of brand advocacy in medical professionals.

3.2 Model Development

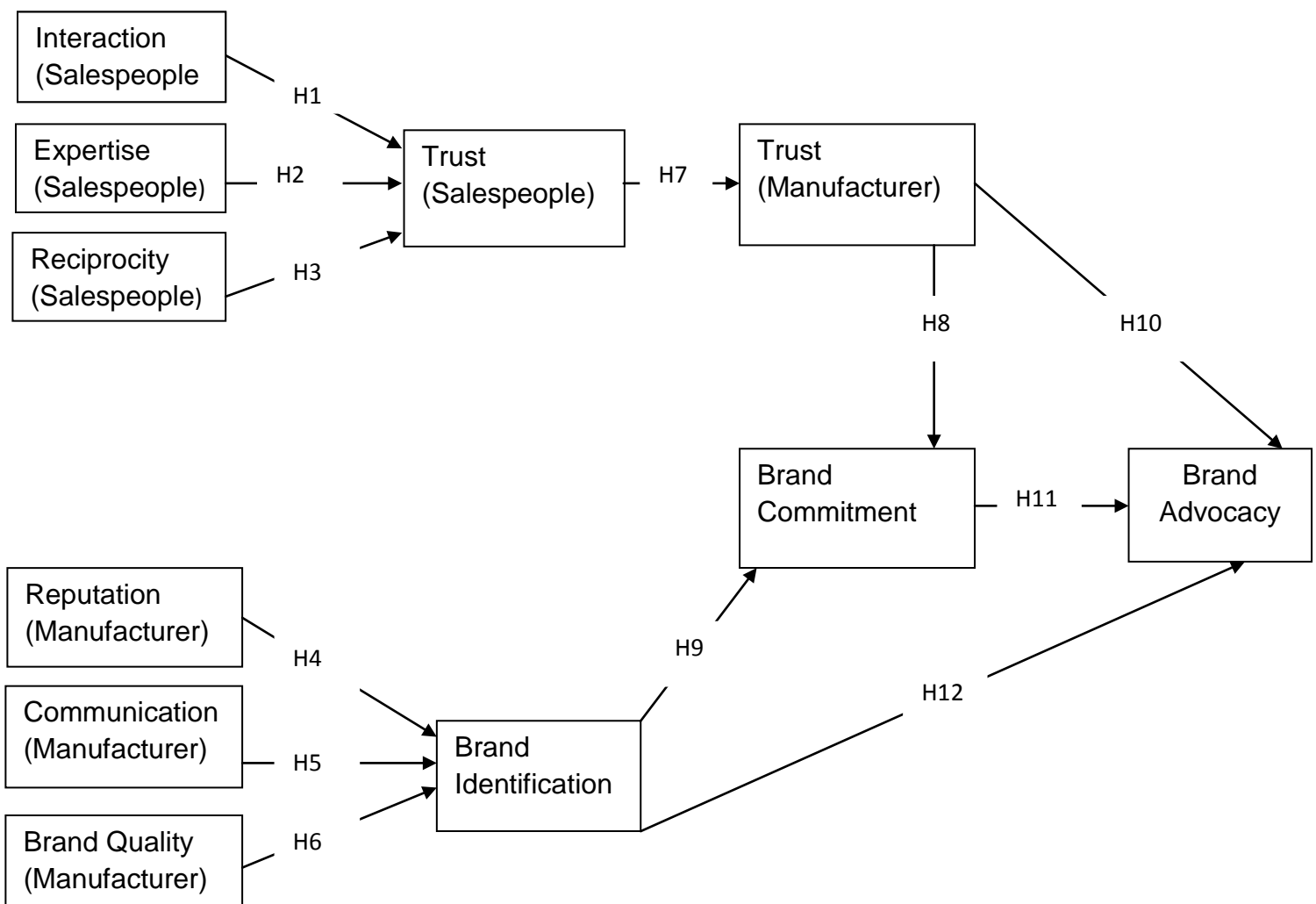
Figure 3.1 presents the conceptual framework developed in this research. Medical professional perceptions of the interaction, expertise and reciprocity of manufacturers' salespeople and the relation to trust are included as exogenous variables. These variables influence medical professionals' trust in salespeople, trust in the manufacturer and brand commitment. Trust in salespeople, manufacturer and brand commitment are hypothesised to influence brand advocacy by medical professionals.

The lower part of Figure 3.1 includes the exogenous variables of reputation, communication and brand quality of the manufacturer as influencers of brand identification. Brand identification is hypothesized to present the influence on both brand

commitment and brand advocacy. Lastly, brand commitment is hypothesised to establish its influence on brand advocacy. In the rest of this chapter each variable in the model will be operationalized and the hypotheses included in the model will be justified from existing literature.

Figure3.1:

The Influence of Manufacturers and Their Salespeople on Brand Advocacy by Medical Professionals



3.2.1 Interaction of Salespeople

Prior studies have indicated that medical professionals see interaction with salespeople as an instrumental factor in trust development (Badrinarayan & Laverie, 2013:61). The nature of direct interpersonal contact between medical professionals and pharmaceutical salespeople determines the quality of the interaction. Previous studies investigating interaction between these two interest groups have indicated frequency and quality as important facets of interpersonal interaction (Badrinarayan & Laverie, 2013:61).

Badrinarayan & Laverie (2013:61) identify assessment of the other party's credibility and benevolence as the two major requirements in establishing trust. Interaction acts as the basis for assessing predictability which will enable the medical professional to interpret prior outcomes. The degree of quality of interaction will also establish stronger credibility and benevolence which will assist the professional in predicting their behaviour with greater confidence (Badrinarayan & Laverie, 2013:61).

According to Nicholson & Compeau (2001:6-7) one of the most important contributors of trust in a business to business relationship is the frequency of personal interaction. Aspects such as the exchange of vital information and the prediction of each other's behaviours will become easier as the frequency of interaction increases.

Doney & Cannon (1997) identify some trust building benefits which are a direct result of high frequency interaction. The first benefit is the fact that the increase in time spent interacting will enable the medical professional to observe the salesperson's behaviour which will enable him to prepare and predict future interactions (Nicholson & Compeau, 2001:6-7). Another benefit is that when a salesperson shows interest to interact with the professional on a regular basis, it will give the professional a sense that he/she is being seen as important.

Nicholson & Compeau (2001:6-7) state "with personal contact, medical professionals have the opportunity to observe nonverbal cues that assist in the assessment of trustworthiness". Accordingly, it is expected that medical professionals are more likely to trust manufacturer's salespeople when they interact on a regular basis.

Hypothesis 1: Medical professionals' perception of the interaction with a manufacturer's salespeople is positively related to trust in that manufacturer's salespeople.

3.2.2 Expertise of Salespeople

Perceived expertise of salespeople by medical professionals indicates that they believe in the capabilities and reliance of these salespeople. Believing in a person's capabilities and reliance will positively contribute to trust formation (Badrinarayan & Laverie, 2013:61). Badrinarayan & Laverie (2013:6) also indicate that perceived expertise supports the extent to which medical professionals believe that a salesperson possesses the adequate knowledge and understanding of their medical product.

Badrinarayan & Laverie (2013:61) reported that multiple studies have shown that trust created through perceived expertise can improve influence attempts and relationship quality between these interest groups. When salespeople are adequate in identifying the medical professional's needs in order to assist in the development of their business perceived expertise is created. The relationship between salesperson expertise and trust has been empirically verified in several studies in the marketing literature (Badrinarayan & Laverie, 2013:61).

Guenzi & Georges (2010:119) define expertise as a salesperson's skills, knowledge, technical competence and ability to answer specific questions related to his brand. The role of expertise in a business- to- business relationship is to minimize any uncertainties and feelings of vulnerability that a person might have. Therefore expertise is seen as a leading indicator in establishing trust in a business- to- business relationship (Guenzi & Georges, 2010:119). Therefore, a salesperson's expertise is positively related to a medical professional's trust in the salesperson.

Hypothesis 2: Medical professionals' perception of the expertise of a manufacturer's salespeople is positively related to trust in that manufacturer's salespeople.

3.2.3 Reciprocity of Salespeople

Bove and Johnson (2009) define reciprocity as high levels of trust that are created over a period of time when two parties exchange goods and share ideas. Therefore reciprocity is a key stabilizing norm in the establishing of effective interpersonal relationships. Accordingly, medical professionals' perceptions of the existence of reciprocity of pharmaceutical sales representatives are likely to improve the level of benevolence and, therefore trust formation.

According to Badrinarayan & Laverie (2013:61) the definition of reciprocity was never broad enough. Previously it was defined as one person returning a favour for something special received from another individual. Badrinarayan & Laverie (2013:61) stipulate that behavioural components which pertain to the appreciation of valued contributions, suppression of negative emotion, and stabilization of the relationship must be included.

Salespeople who are committed and motivated to help and reward the perceiver will be more trusted than those suspected of harbouring exploitative intentions. Therefore reciprocity is a fundamental virtue at the core of marketing relationships (Doney and Cannon, 1997:37).

Hypothesis 3: Medical professionals' perception of the reciprocity of a manufacturer's salespeople is positively related to trust in that manufacturer's salespeople.

3.2.4 Manufacturer's Reputation

In the business-to-business context reputation is defined as an individual's perceptions on how other important individuals, companies and information sources evaluate a given manufacturer (Badrinarayan & Laverie, 2013:127). Kuenzel & Halliday (2010:169) indicate that the reputation of a brand or company will indicate their level of success in an industry. When a company has an attractive reputation due to it being very successful, it will automatically enhance people to identify with the company. Reputation is sometimes assessed based on personal experience. However, factors like word-of-mouth communication and media reports play just as an important role in reputation (Kuenzel&Halliday, 2013:127).

Positive identification is a direct result of an individual willingly associating himself with a high reputation well-regarded brand. Multiple studies have shown that people associate themselves with high reputation brands in order to increase their self-esteem (Kuenzel & Halliday, 2010:169). When a manufacturer is known to have a favourable reputation, people will tend to be more open to affiliate themselves with the company as it can be seen as an opportunity for positive social identity (Badrinarayan & Laverie, 2013:127). Therefore when medical professionals perceive that a pharmaceutical company is well regarded by other important role players, they will be more likely to identify with the company's brand.

Hypothesis 4: The more favourable medical professionals' perception of a manufacturer's reputation, the stronger their identification with the manufacturer's brand.

3.2.5 Communication Quality

According to Badrinarayan & Laverie (2013:127) information exchange is one of the most important ingredients in successful relationship building efforts of manufacturers in any sales and marketing sphere. In order to effectively inform a medical professional about a manufacturer's products, salespeople need to give the adequate amount of detailing on a regular basis. This method of communication is especially important in the pharmaceutical industry because of the complex and technical nature of medicine products. This detailing will enable the medical professional to better understand product functionalities, specifications and most importantly safety precautions (Badrinarayan & Laverie, 2013:127).

Badrinarayan & Laverie (2013:127) report that past studies indicate a strong relationship between high quality communication and strong brand identification. High quality communication has proven to increase an entity's attractiveness to a certain brand and manufacturer. Increased attractiveness of a brand induces the will to relate to the specific brand attributes and reminds the medical entity to provide continued cognitive consideration for the given brand. In essence this process will effectively cue brand identification (Scott & Lane 2000). Therefore, when medical professionals

perceive that communication from a pharmaceutical company is of high quality, they are likely to identify with the manufacturer's brand.

Hypothesis 5: The more favorable medical professionals' perception of a manufacturer's communication, the stronger their identification with the manufacturer's brand

3.2.6 Brand Quality

Bharadwaj et al. (2011:p3) explain that perceived brand quality is generated when a person feels that a specific brand has met his/her desired requirements and expectations. When a brand is successful in meeting an individual's needs and requirements, he/she will identify with the brand. It is when a brand manages to retain and improve on its quality that it will increase the likelihood of repurchase and recommendations. The reason for this is that it increases the brands credibility and reduces the perceived risk and information costs of the involved party (Bharadwaj et al.2011:3). The importance of perceived brand quality on brand identification has led to manufacturers committing significant recourses into quality improvement programs and the training of salespeople to provide quality information (Guo and Zhao 2009).

Badrinarayan & Laverie (2013:128) define brand quality as the perception of an individual that a certain brand possesses superior attributes and advantages over other similar products in an industry. Superiority is gained out of positive evaluations on a brands performance, customer feedback, personal experience and demonstrations done by manufacturer's salespeople.

Badrinarayan & Laverie (2013:128) explain: "as quality perceptions form a critical component of a brand's identity, high brand quality fosters identification by enchanting the attractiveness of the brand's identity, that is, the brand is perceived to contribute more to self-esteem, self-consistency, and self-distinctiveness than other brands". Therefore when medical professionals perceive a pharmaceutical company's brand as possessing high quality, they are likely to identify with that brand.

Hypothesis 6: The more favourable medical professionals' perception of a manufacturer's brand quality, the stronger their identification with that manufacturer's brand.

3.2.7 Trust in Salespeople's Relation to Trust in Manufacturer

Badrinarayan & Laverie (2013:60) explain that past research has successfully indicated that when there is a strong trust relationship between a retail sales associate and a manufacturer's salesperson, the sales associate will tend to trust the manufacturer as well. When looking at trust which is a vital element of a strong business relationship it can be assumed that trust in manufacturers' salespeople will also be carried over to the corresponding firm.

Kennedy et al. (2001:73-86) report that when a salesperson uses his various functions to such an extent that trust is created between him and the involved party, the trust will also be extended to the manufacturer. This is called the halo effect, where a positive experience with a salesperson is carried over to the manufacturer of the brand or service. Manufacturers use multiple resources in the process of hiring, training and managing salespeople, and this explains why people make a positive link between a competent salesperson and the effectiveness of the manufacturer (Kennedy, 2001:73-86).

Another factor linking salespeople and manufacturer trust is perceived product quality (Kennedy, 2001:73-86). When a person interacts with a specific brand and reaches a high level of satisfaction, perceived quality is created and trust is developed between the individual and the salesperson who recommended the brand. The idea that a salesperson is selling a high quality brand leads to the conclusion that an effective company is behind the production of the brand and so trust is extended (Kennedy, 2001:73-86).

Hypothesis 7: Medical professionals' trust in a manufacturer's salespeople is positively related to trust in that manufacturer.

3.2.8 Trust in a Manufacturer and the Influence on Brand Commitment

Fullerton (2010, p.95) reports that when a person sees a company as being reliable and worthy of trust, they will over time become more attached and committed to the given brand or company. This process is the root of trust and it stands to conclude that trust will enhance affective commitment. There is high risk involved in committing to one entity; therefore it is fair to say that people will only commit to companies or brands when they see them as being very trustworthy (Fullerton, 2010:95).

As was indicated earlier trust plays an important role in any business-to-business relationship. When there is a clear indication of trust between a manufacturer and a retail sales associate it will lead to highly valued exchange relationships between the parties. These exchange relationships are based on ongoing commitment and maintaining of a valuable and important relationship that has been created by trust (Badrinarayan & Laverie, 2013:60).

In any business-to-business marketing situation trust is seen as the cornerstone of the development of effective organizational relationships (Fullerton, 2010:95). In saying that, commitment in any business-to-business relationship will not be possible in the absence of trust. Fullerton (2010, p.95) supports this by indicating that there are multiple theoretical and conceptual support for the theory that trust is indeed a direct antecedent of affective commitment.

Hypothesis 8: Medical professionals' trust in the manufacturer is positively related to commitment toward that manufacturer's brand.

3.2.9 Brand Identification and the Relation to Brand Commitment

According to Tuskey et al (2013:54) people strive to express their sense of self and in order to do this they connect and identify with some brands that familiarize their personality and character traits. Tuskey et al (2013:54) use the self-congruity theory (Johar and Sirgy, 1991) to define identity congruity as “a mental comparison that consumers make in respect to the similarity or dissimilarity of entity’s values and their own set of values”. Psychological comparisons like this can increase congruity when consumers perceive that brand image matches their own sense of self.

Tuskey et al (2013:54) further state that brand identification relates to satisfaction of self-definitional consumer needs. Therefore when a brand is able to link the connection between an individual’s self-consistency and self-esteem it will not only lead to powerful identification but also create positive attitudes towards a brand and its manufacturer.

Badrinarayan & Laverie (2013:129) note that a multitude of studies have concluded that identification of a brand will positively influence willingness to contribute more and commit to a certain brand or manufacturer. It is estimated that when people identify themselves with a brand they take ownership of the brand and end up sharing in the brand’s successes and failures Badrinarayan & Laverie (2013:129).

Bhattacharya and Sen (2003) are of the opinion that brand identification will motivate individuals to go the extra mile for an entity and contribute to its success. They will also be actively part in the process of achieving the entity’s goals and expend more voluntary effort on its behalf. Therefore it can be stated that when medical professionals identify with a manufacturer or its brand they are likely to promote, recommend and most importantly commit to it.

Hypothesis 9: Medical professionals’ identification of a manufacturer’s brand is positively related to commitment of that manufacturer’s brand.

3.2.10 Trust in a Manufacturer and the Relation to Brand Advocacy

Mazzarol et al. (2007) argue that when you compare repurchase behaviour and brand advocacy, the latter is a more precise predictor of brand loyalty. The reasoning behind this conclusion is that people will only recommend and endorse a brand or manufacturer when they have strong feelings about the entity (Mazzarol et al. 2010).

According to Fullerton (2010:93) when an individual is continuously pleased with the quality of a brand he is using, it will increase trust and the person will become a brand advocate of the manufacturer. Trust has received considerable more research attention than other psychological processes influencing marketing relationships over the past decade. This emphasizes the fact that trust lies at the heart of relationship marketing (Fullerton, 2010:93) Trust is also a key driver of all customer loyalty behaviours such as brand advocacy.

Moorman et al. (1992) explain that trust is a person's willingness to rely on a business party when one is confident in their reliability and integrity, which shows that trust is a cognitive evaluation of the actions of a relational partner. Fullerton (2010:93) identifies two aspects of trust that ultimately promote brand advocacy. The first is credibility, which shows that a person believes and communicates the words and promises of the business party. The second is benevolence which indicates to what extent an individual believes that a manufacturer would act in their best interest at all times. To conclude, people will recommend and advice brands and manufacturers whom they see as dependable and helpful in their daily lives (Fullerton, 2010:93).

Hypothesis 10: Medical Professionals' trust in the manufacturer is positively related to advocacy of that manufacturer's brand

3.2.11 Brand Commitment and the Relation to Brand Advocacy

Desai and Raju (2007) define brand commitment as a psychological state or emotional attachment which leads to the unconditional support and favourable behaviour towards a brand or manufacturer. There is also a known positive link between brand commitment and marketing communication processes like word –of- mouth, recommendations and suggestions (Badrinarayan & Laverie, 2013:129)

Turri& Smith (2013, p203-206) state that there are two distinct components of commitment, which they identify as continuance and affective commitment. Continuance commitment is mostly financially based and the commitment stems from the fact that the cost to switch over to an alternative product or service is just too high. Affective commitment differs from continuance commitment in that the main source for the individual's commitment is based on an emotional attachment that the customer has developed with the brand or company.

Not only are the costs of retaining a customer with affective commitment lower but it increase the barriers of switching over to competitors. According to Turri& Smith (2013, p203-206) affective commitment will also increase the potential of a customer's will to convert others to the brand and company via brand advocacy. Thompson et al. (2006) support this by stating that a person with affective commitment will voluntarily act as an "evangelist" for the brand. This evangelism includes the person spreading positive word-of-mouth and going the extra mile to recruit others to use the same product.

Fullerton (2010, p95) is of the opinion that positive word-of-mouth is the main effect resulting from a person's affective commitment to a brand or company. The fact that people like to see a company succeed when they are affectively committed to them supports this. Affectively committed individuals will tend to be more comfortable in recommending the brand to people very close to them who they care about, because they trust in the effectiveness of the brand and believe that these people will benefit from using it (Brown et al. 2005).

Therefore it is reasonable to conclude that when a medical professional is affectively committed to a brand he will act as a product advocate on behalf of the brand and its manufacturer.

Hypothesis 11: Medical professionals' commitment to a manufacturer's brand positively influences advocacy of the manufacturer's brand.

3.2.12 Brand Identification and Brand Advocacy

Stockburger-Sauer et al. (2011:17-18) identify advocacy of a manufacturer as the key consequences of brand identification. Advocacy can take place socially and physically. Stockburger-Sauer et al. (2011:17-18) define the social advocacy as when an individual goes out of his way to recommend a manufacturer brand or service. Another social factor is when the manufacturer is being criticized; the involved person would normally come to its defence. Physical advocacy plays more in the direction where a person will purchase and use company merchandise that displays the company logo or name (Stockburger-Sauer et al. 2011:17-18). In the medical field you would often see a doctor or pharmacist making use of one manufacturer's branded sales material and stationery.

The flexibility of word-of-mouth ensures that information can be spread from one individual to many others (Tuskej et al. 2011:53-59). Word-of-mouth communication has become a very important tool of both marketing research and communication functions over the last decade. The main reason for this is that word-of-mouth is instrumental in shaping consumers' attitudes and behaviours (Tuskej et al. 2011:53-59).

Brown et al. (2005:123) report that recent studies support the fact that word-of-mouth is the most important response that can be derived from business relationship efforts. It is therefore clear that brand identification shows a positive impact on word-of-mouth and advocacy.

Tuskej et al (2011:53-50) conclude: “when consumers perceive a brand as the only acceptable choice because they are emotionally attached to the brand, they may participate in word-of-mouth for the reasons of comfort and reassurance or simply because they believe in the brand”.

Hypothesis 12: The stronger medical professionals’ identification with a manufacturer’s brand, the greater their brand advocacy of that brand.

3.3 Conclusion

The purpose of this chapter was to assist in developing a theoretical model of the determinants of brand advocacy in medical professionals. After the development of the model each variable in the model was operationalized and the hypotheses that were included in the model were justified from existing literature.

Chapter 4: Research Methodology

4.1 Introduction

The objective of this chapter is to identify the research methods used in this study. The research design will be based on Cooper and Schindler's (2011, p.140) proposed eight descriptors. After introducing the eight descriptors the chapter will follow with the sampling and data collection techniques used in the study. The questionnaire layout, data analysing method and research ethics will be discussed in the last part of the chapter.

4.2 Research Design

This part of the chapter will focus on the essential factors which are needed to give structure to the research process. This structure will make it possible to obtain and answer the research question. Cooper and Schindler (2011, p.140) classify these essential factors as eight different descriptors. The following paragraphs will give an explanation of how these descriptors contribute to the research structure.

4.2.1 The Degree of Crystallization of the Research Question

Cooper and Schindler (2011, p.140) explain that a formal study starts off with a research question, and the goal of the formal study is to test the hypotheses or answer the research question. This study has the following research question: are the factors that lead to brand advocacy the same for medical practitioners and pharmacists? The goal of the study is to test the hypotheses of this research question.

4.2.2 Method of Data Collection

When the researcher questions the participants and collects their response by personal or impersonal means it is seen as a communication study (Cooper & Schindler 2011, p.141). Therefore this study is a communication study as the participants answered a paper based questionnaire, which was collected when they were done. After that the results will be collated and measured.

4.2.3 Research Control of Variables

According to Cooper and Schindler (2011, p.141) when a researcher has no control over the variable results, it can be classified as ex post facto design. In this study the variables were collected out of a literature review with the purpose of discovering the relationship between them. Therefore this research study makes use of the ex post facto design.

4.2.4 The Purpose of the Study

This is a causal-explanatory study, because the study is concerned with learning how one variable produces changes in another. In any causal-explanatory study the researcher aims to explain the relationships among variables (Cooper & Schindler 2011, p.141).

4.2.5 The Time Dimension

The difference between cross-sectional and longitudinal studies is that longitudinal studies are repeated over an extended period in order to evaluate changes over time (Cooper & Schindler 2011, p.142). The timeframe for completing this study is one calendar year; therefore it is a cross-sectional research as the survey will only take place once.

4.2.6 The Topical Scope

Cooper and Schindler (2011, p.142) define statistical studies as studies that attempts to collect a certain population's characteristics by making inferences from a sample's characteristics. In statistical studies the hypotheses are tested quantitatively. In this study the population is medical professionals, and the characteristics of how they become brand advocates by making inferences from a sample's characteristics. This confirms that the study is statistical in nature.

4.2.7 The Research Environment

This research occurs under actual working environmental conditions and therefore is a field study. The other research environment is laboratory conditions, which take place when researchers replicate the essence of a system or process. This is also known as simulations (Cooper & Schindler 2011, p.141).

4.2.8 Participants' Perceptions

According to Cooper and Schindler (2011, p.143) a participant's perceptual awareness can influence the outcomes of the research in subtle ways. The participants in this study did not know the researcher and therefore they did not feel obliged to answer in favour of the researcher. The participants had freedom to complete the survey in their own time, which eliminated any perception that the survey is changing their daily routine.

4.3 Sampling

4.3.1 Target Population

As indicated in the title of the study, the target population is pharmacists and medical doctors. The target population must be qualified in their respective positions and their primary career must be that of a pharmacist or a medical doctor. The target population were drawn out of the Gauteng, North West, Mpumalanga and Limpopo areas of South Africa.

4.3.2 Sampling Method

According to social research methods (2006) non-probability sampling can be divided into accidental or purposive sampling. Purposive sampling normally occurs when the researcher approaches a certain sample problem with a specific plan. The specific plan can consist of one or more groups of individuals. In this research study the specific plan consists of pharmacists and medical doctors, which indicates that a purposive non-probability sample method will be used.

4.3.3 Sample Size

The sample size included 200 pharmacists and 200 medical doctors who are practising their professions in South Africa.

4.4 Data Collection

4.4.1 Method

The method of collection of data was based on the development of a self-developed questionnaire to effectively gather the quantitative data for this research. The questions in the questionnaire weren't self-crafted, but were selected from various relevant previous research studies.

The questionnaires were left at either the pharmacist or medical doctor's consulting room. The participants were given enough time to finish the questionnaires without intruding on their schedules. The questionnaires were collected after a set period of time. The survey took place during June and July 2014.

The participants were made aware that in answering the survey they played a vital role in helping the researcher to attain his MBA. Pharmacists and medical doctors had to endure various educational procedures in order to attain their qualifications. This will increase the probability of completing the survey as they had to go through similar procedures.

In order to comply with ethical measures the participants will be informed that the survey is not compulsory. Participants will also be given the assurance that the questionnaires will be handled privately and confidentially.

4.4.2 Questionnaire Layout

The questionnaire consisted of 33 questions and statements with the objective of measuring different important variables that influence brand advocacy by medical professionals. In order to measure the participants' opinions accurately, a 7-point Likert scale was used (1=strongly disagree, 7=strongly agree).

4.5 Analysis of Data

4.5.1 PLS

The partial least squares (PLS) regression analysis was used in order to investigate the relationship between the different variables and brand advocacy of medical professionals. The variance-based PLS procedure was chosen because PLS is robust to deviations from normality. PLS also provides stable estimates in small sample sizes.

4.6 Research Ethics

Firstly the objectives and reasons of this study were explained to the participants, to ensure their cooperation in providing the researcher with honest, comprehensive answers. Secondly, it was confirmed that the confidentiality of records and the anonymity of accounts would be maintained at all times. The identities of the applicants remained confidential at all times. Participants were informed that the surveys were completely voluntary and that they weren't pressurised into participating.

4.7 Conclusion

This chapter gave an overview of the planning and processes that were carried out during this research. The chapter discussed the research design, the sampling with its target group, the sample methods, sample size and data collection method. The chapter was concluded by looking at the PLS regression analysis which was used to analyse the data where after the research ethics were considered.

Chapter 5: Empirical Results

5.1 Introduction

The primary objective of this study is to determine whether the key determinants of brand advocacy are invariant between doctors and pharmacists. In order to achieve this objective, data on the determinants of brand advocacy by both pharmacists and doctors were collected. The data collected will be analysed in this chapter after which the results will be reported.

The chapter will begin by analysing the demographical data collected on both pharmacists and doctors. Frequency tables will be used to analyse the data. The most important part of the chapter will be the testing of the regression model with the data of both cohorts. Results of the cohorts will be demonstrated by means of figures and summaries of the hypothesis testing results will be shown in table format.

5.2 Descriptive Statistics

In order to develop the descriptive statistics frequency tables will be used. The frequency tables will identify and describe the respondents on key variables such as gender, age, years of work, city/town of work and type of position. The descriptive statistics results were compiled out of 51 doctor and 70 pharmacist completed questionnaires.

5.2.1 Frequency Tables

5.2.1.1 Gender

In both cohorts, pharmacists and doctors, the majority of the respondents were males. Within the pharmacist cohort males showed a representation of 54.3% and females 45.7%. The doctor cohort indicated representations of 68.6% and 31.4% for males and females respectively.

Table 5.1
GENDER PROFILE

Gender	Pharmacists		Doctors	
	Number	Percent	Number	Percent
Male	38	54.3	35	68.6
Female	32	45.7	16	31.4
Total	70	100	51	100

5.2.1.2 Age

In the pharmacist cohort the age category 31-50 represented the most respondents with a total of 54.3%. The 51+ category only represented 18.6% and respondents 30 years and younger showed 27.1% participation. The doctor cohort on the other hand was different from that of the pharmacist cohort. The age group 31-50 still represented the majority of participants with 51%, while the 51+ category followed with 43.1% of participants. Only 3 respondents from the 51 doctor participants represented the category 30 years and younger. The longer study period of medical doctors may be regarded as the main reason for the significant difference between this age group of cohorts.

Table 5.2
AGE PROFILE

Age	Pharmacists		Doctors	
	Number	Percent	Number	Percent
≤30	19	27.1	3	5.9
31-50	38	54.3	26	51
51+	13	18.6	22	43.1
Total	70	100	51	100

5.2.1.3 Years of Work

Similar to the age profile, the highest amount of respondents in both cohorts came out of the 16+ category. The pharmacist cohort showed a 31.4% representation in the 16+ category and the doctor cohort 52.9%. The rest of the pharmacy categories showed a very close relation; ≤5 (24.3%), 6-10 (24.3%) and 11-15 (20%). In the doctor cohort the 6-10 and 11-15 categories represented 17.6% and 21.6% respectively. Respondents working 5 years and less in the doctor cohort only represented a mere 7.8%.

Table 5.3
Years of work profile

Years of work	Pharmacists		Doctors	
	Number	Percent	Number	Percent
≤5	17	24.3	4	7.8
6-10	17	24.3	9	17.6
11-15	14	20	11	21.6
16+	22	31.4	27	52.9
Total	70	100	51	100

5.2.1.4 City/Town

In both cohorts Johannesburg and Pretoria represented the most participants. A total of 27 pharmacists working in Johannesburg participated in the survey, while 22 pharmacists working in Pretoria participated in the study. The opposite can be seen in the doctor cohort with Pretoria on 51% and Johannesburg on 43.1% representation. In both cohorts the rest of the towns/city's showed a smaller representation of less than 5%.

Table 5.4
City/Town profile

City/Town	Pharmacists		Doctors	
	Number	Percent	Number	Percent
Boksburg	3	4.3		
Brits	2	2.9		
Johannesburg	27	38.6	22	43.1
Middelburg	3	4.3		
Polokwane	2	2.9		
Potchefstroom	5	7.1	2	3.9
Pretoria	22	31.4	26	51
Tzaneen	1	1.4		
Witbank	5	7.1		
Rustenburg			1	2
Total	70	100	51	100

5.2.1.5 Type of Position

The majority of the respondents (61.9%) were permanent pharmacists while the rest (38.6%) were locum pharmacists. In the doctor cohort only 7.8% of the respondents were specialist while the rest (92.2%) were general practitioners.

Table5.5
Type of position profile

Type	Pharmacist		Doctor	
	Number	Percent	Number	Percent
Permanent/GP's	43	61.4	47	92.2
Locum/Specialists	27	38.6	4	7.8
Total	70	100	51	100

5.3 Assessment of the Scale Reliability

In order to test the reliability of the scales used to measure each construct in the measurement model, the Cronbach's Alpha coefficient was used. The theoretical value of alpha varies from zero to 1. The higher the value of alpha, the higher is the reliability of the variables. In order to show adequate reliability the Cronbach's Alpha needs to indicate a value of 0.7 or higher. Hanneman (2006:1) identifies the different values and meanings of the Cronbach's Alpha which can be seen in Table 5.6.

Table 5.6

Cronbach's Alpha	Reliability
Higher or equal to 0.9	Excellent
Between 0.7 and 0.9	Good
Between 0.6 and 0.7	Acceptable
Between 0.5 and 0.6	Poor
Below or equal to 0.5	Unacceptable

The results of the Cronbach's Alpha test can be seen in Table 5. 7. The results in Table 5.7 show that all the constructs, except for reciprocity of salespeople (see pharmacist cohort), showed a reliability index of 0.7 and higher. Reciprocity in the pharmacist cohort was on 0.618 which is not ideal, but acceptable.

Table 5.7**Cronbach's Alpha Construct Reliability and Validity**

Construct	Pharmacists	Doctors
Brand Advocacy	0.781	0.908
Brand Commitment	0.893	0.942
Trust in the Manufacturer	0.876	0.955
Trust in Salespeople	0.809	0.951
Brand Identification	0.891	0.984
Interaction of Salespeople	0.745	0.952
Expertise of Salespeople	0.717	0.969
Reciprocity of Salespeople	0.618	0.972
Reputation of Manufacturer	0.810	0.877

Communication of Manufacturer	0.866	0.897
Brand Quality	0.745	0.713

During the first testing the Cronbach's Alpha indicated a reliability of 0.408 on brand identification in the doctor cohort. Only 51 questionnaires were collected from the doctor cohort and the low reliability on brand identification can potentially be attributed to the small sample. The first item of brand identification (BI1) was removed and the reliability test was repeated. The revised brand identification scale (comprising of items BI2 and BI3) showed an improved reliability of 0.984.

5.4 Assessment of the Regression Model: Pharmacist Cohort

Figure 5.1 presents the results of the testing of the regression model with the data of pharmacists. The proposed model measured approximately 78% of brand advocacy, 84% of brand commitment, 51% of trust in the manufacturer, 82% of brand identification and 61% of trust in salespeople.

The empirical results supported nine of the twelve hypotheses in the brand advocacy model. The results supported the hypothesised effect between trust in salespeople and interaction of salespeople, and between trust in salespeople and reciprocity of salespeople. Thus, hypotheses H1 and H3 were accepted. Furthermore empirical support was also found for the hypothesised effect between brand identification and reputation of the manufacturer. Thus, hypothesis H4 was also accepted. The hypothesised effect between trust in the manufacturer and trust in salespeople, brand commitment and trust in manufacturer and brand commitment and brand identification were supported by the results. Thus, hypotheses H7, H8 and H9 were also accepted.

The results also supported the hypothesised effect between brand advocacy and trust in the manufacturer, brand advocacy and brand commitment, and brand advocacy and brand identification. Thus, hypotheses H10, H11 and H12 were also accepted. The study could not find support for the hypothesised effect between trust in salespeople and expertise of salespeople, brand identification and communication of manufacturer, and brand identification and brand quality. Hypotheses H2, H5 and H6 were therefore rejected.

The results of the study indicated that brand commitment has the strongest influence on brand advocacy for pharmacists. Overall the predictive validity of the model was good. A summary of the hypothesised results is presented in table 5.8.

FIGURE 5.1

Regression Model – Pharmacist Cohort

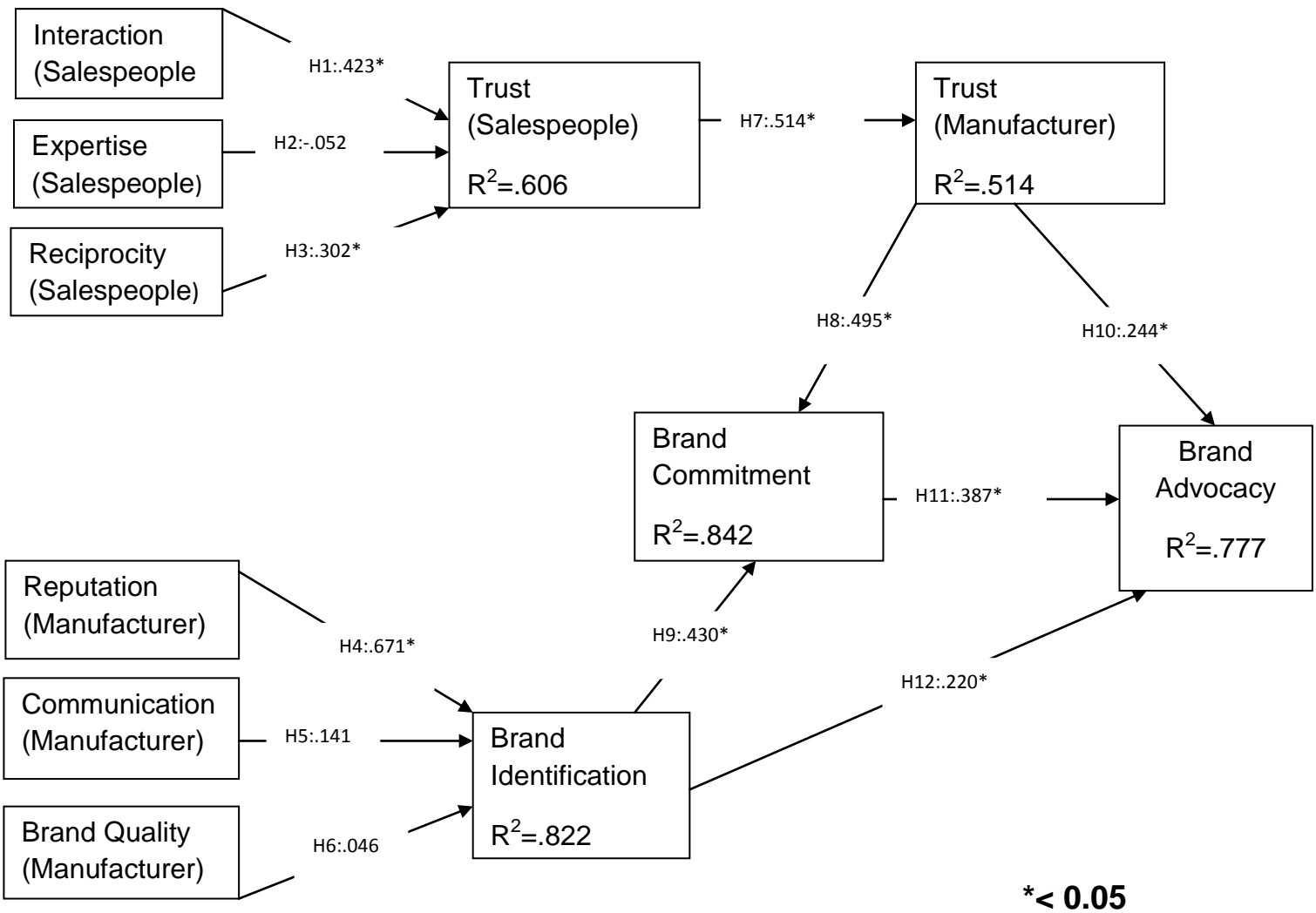


Table 5.8
Summary of Hypotheses Testing Results – Pharmacist Cohort

Hypothesis	Independent	Dependent	Direction	Hypothesis Accepted/rejected
H1	Interaction	Trust in Salespeople	+	Accepted
H2	Expertise	Trust in Salespeople	-	Rejected
H3	Reciprocity	Trust in Salespeople	+	Accepted
H4	Reputation	Brand Identification	+	Accepted
H5	Communication	Brand Identification	+	Rejected
H6	Brand Quality	Brand Identification	+	Rejected
H7	Trust in Salespeople	Trust in Manufacturer	+	Accepted
H8	Trust in Manufacturer	Brand Commitment	+	Accepted
H9	Brand Identification	Brand Commitment	+	Accepted
H10	Trust in Manufacturer	Brand Advocacy	+	Accepted
H11	Brand Commitment	Brand Advocacy	+	Accepted
H12	Brand Identification	Brand Advocacy	+	Accepted

5.5 Assessment of the Regression Model: Doctor Cohort

Figure 5.2 presents the results of the testing of the regression model within the doctor cohort. The proposed model measured approximately 90% of brand advocacy, 67% of brand commitment, 66% of trust in the manufacturer, 54% of brand identification and 60% of trust in salespeople.

The empirical results supported seven of the twelve hypothesised determinants of brand advocacy for doctors. The results supported the hypothesised effect between trust in salespeople and interaction of salespeople. The study did however not show any support for the hypothesised effect of expertise of salespeople and reciprocity of salespeople on trust in salespeople. The study supported the hypothesised effect between brand identification and reputation of the manufacturer, while communication and brand quality of the manufacturer were not supported. Thus, hypotheses H1 and H4 were accepted, while H2, H3, H5 and H6 were rejected.

Furthermore empirical support was found for the hypothesised effect between brand identification and brand commitment, trust in salespeople and trust in manufacturer, trust in manufacturer and brand commitment. The empirical results also supported the hypothesised effect between trust in the manufacturer and brand advocacy and the effect between brand commitment and brand advocacy. Therefore, hypotheses H7, H8, H9, H10 and H11 were supported by the results. The study could not find support for the hypothesised effect between brand identification and brand advocacy. Thus, hypothesis H12 was rejected.

Overall the predictive validity of the model was good. A summary of the hypothesised results is presented in Table 5.9.

FIGURE 5.2
Regression Model – Doctor Cohort

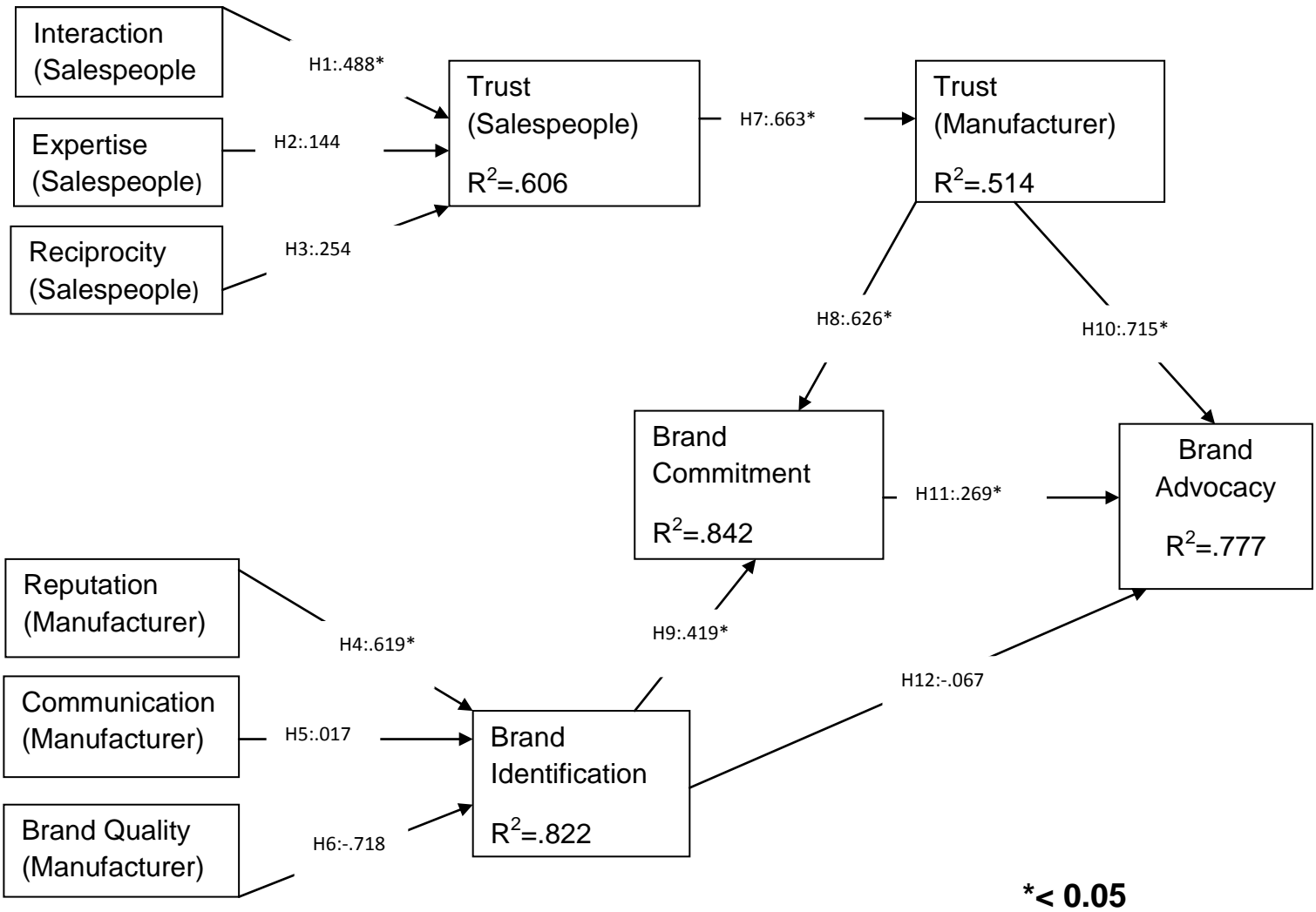


Table 5.9
Summary of Hypotheses Testing Results – Doctor Cohort

Hypothesis	Independent	Dependent	Direction	Hypothesis Accepted/rejected
H1	Interaction	Trust in Salespeople	+	Accepted
H2	Expertise	Trust in Salespeople	+	Rejected
H3	Reciprocity	Trust in Salespeople	+	Rejected
H4	Reputation	Brand Identification	+	Accepted
H5	Communication	Brand Identification	+	Rejected
H6	Brand Quality	Brand Identification	-	Rejected
H7	Trust in Salespeople	Trust in Manufacturer	+	Accepted
H8	Trust in Manufacturer	Brand Commitment	+	Accepted
H9	Brand Identification	Brand Commitment	+	Accepted
H10	Trust in Manufacturer	Brand Advocacy	+	Accepted
H11	Brand Commitment	Brand Advocacy	+	Accepted
H12	Brand Identification	Brand Advocacy	-	Rejected

5.6 Comparison Summary of Hypothesis Testing Results Between the Two Cohorts

Hypothesis one showed a positive direction for both the doctor and pharmacist cohorts and was accepted in both. Hypothesis two showed a positive direction in the doctor cohort but a negative direction in the pharmacist cohort. In both cohorts H2 was rejected. H3 indicated positive directions for both cohorts, but only the pharmacist cohort was accepted.

Positive directions were seen in both H4 and H5. However the hypotheses were only accepted in H4 for both cohorts while it was rejected for both in H5. In hypothesis six a negative and positive direction were identified for the doctor and pharmacist cohorts respectively. However both cohorts were rejected in H6.

In both the doctor and pharmacist cohorts H7, H8, H9, H10 and H11 were accepted and showed positive directions. It was indicated that H12 was accepted in the pharmacy cohort but not in the doctor cohort. The doctor cohort also showed a negative direction in H12 while the pharmacist cohort indicated a positive direction.

Table 5.10**Comparison Summary of Hypotheses Testing Results Between the Two Cohorts**

Hypothesis	Independent	Dependent	Direction		Hypothesis Accepted/rejected	
			Dr	RPh	Dr	RPh
H1	Interaction	Trust in Salespeople	+	+	Accepted	Accepted
H2	Expertise	Trust in Salespeople	+	-	Rejected	Rejected
H3	Reciprocity	Trust in Salespeople	+	+	Rejected	Accepted
H4	Reputation	Brand Identification	+	+	Accepted	Accepted
H5	Communication	Brand Identification	+	+	Rejected	Rejected
H6	Brand Quality	Brand Identification	-	+	Rejected	Rejected
H7	Trust in Salespeople	Trust in Manufacturer	+	+	Accepted	Accepted
H8	Trust in Manufacturer	Brand Commitment	+	+	Accepted	Accepted
H9	Brand Identification	Brand Commitment	+	+	Accepted	Accepted
H10	Trust in Manufacturer	Brand Advocacy	+	+	Accepted	Accepted
H11	Brand Commitment	Brand Advocacy	+	+	Accepted	Accepted
H12	Brand Identification	Brand Advocacy	-	+	Rejected	Accepted

*Dr – Doctor cohort

*RPh – Pharmacist cohort

5.7 Conclusion

This chapter assisted in forming the link between the data techniques that were discussed in chapter 4 and the data collected in the empirical phase. The link was the process of analysing the data which delivered some significant results, which in turn helped to realize the primary objective.

The results of the hypothesis testing did indeed provide evidence that there are distinct differences in the determinants of brand advocacy between pharmacists and doctors. The results also indicated that most of the determinants do in fact contribute to brand advocacy. However, in both cohorts there were some determinants that did not show significance.

Therefore it can be concluded that the model developed during this study is an acceptable model in determining whether the key determinants of brand advocacy are invariant between doctors and pharmacists. The results will also enable a pharmaceutical company to determine on which determinants they need to focus in order to increase brand advocacy. An in-depth discussion on these results will follow in chapter 6.

Chapter 6: Conclusion and Recommendations

6.1 Introduction

The aim of this study was to determine whether the key determinants of brand advocacy are invariant between doctors and pharmacists. The findings of the empirical study did indicate some differences between the determinants of brand advocacy between doctors and pharmacists. Most of these differences are seen in those determinants that directly influence brand advocacy.

The purpose of this chapter will firstly be to highlight the most important findings, after which some conclusions will be made. The findings and conclusions will help to identify some recommendations. These recommendations can be used by pharmaceutical companies to enhance brand advocacy by doctors and pharmacists.

6.2. Interaction, Expertise and Reciprocity of Salespeople as Predictors of Trust in Salespeople

6.2.1 Findings

Interaction and Reciprocity positively influenced trust in salespeople for pharmacists, while interaction was the strongest predictor. Expertise did not show a significant influence. On the other hand, in the doctor cohort only interaction was identified as a significant predictor of trust in salespeople.

6.2.2 Conclusion

Pharmaceutical companies spend most of their money and time on training. This is done in order to improve the expertise of their salespeople. This study however clearly indicates that expertise is not influential in creating trust of salespeople with medical professionals. It is plausible that medical professionals may feel that they have spent the adequate time in studying medicine. They are the experts.

6.2.3 Recommendations

Based on the results of the study it is recommended that companies must rather invest their resources in tools to increase the quality of interaction between the salesperson and the medical professionals. These tools can include anything that makes the sales call more interesting and worthwhile. Competitions, video clips, interesting facts and tasty treats are good examples.

6.3 Reputation, Communication and Brand Quality of the Manufacturer as Predictors of Brand Identification

6.3.1 Findings

For both the pharmacist and doctor cohorts only the reputation of the manufacturer is a strong predictor of brand identification. Communication and brand quality did not show any significance.

6.3.2 Conclusions

The non-significant influence of communication and brand quality could be explained by a saturated pharmaceutical market. High competition has led to companies producing high quality communication and brand quality in order to stay competitive. Therefore it makes it difficult to stand out in the departments of communication and quality in the over-populated market.

Reputation, however, is something that is earned over time. When a company has succeeded in establishing a good reputation, it will increase its brand identification with medical professionals.

6.3.3 Recommendations

In order for pharmaceutical companies to develop brand identification it is vital to establish and maintain an honourable reputation.

Companies can increase their reputation in various ways. Being seen as a professional and supportive manufacturer forms the basis for a good reputation. Manufacturers can

also improve on their reputation by showing the medical professional that they are truly interested in their business. Companies need to establish an excellent track record of service in order to maintain their reputation.

6.4 Trust in Salespeople and the Relation to Trust in the Manufacturer

6.4.1 Findings

Trust in salespeople is seen as a very important influence of trust in a manufacturer by both doctors and pharmacists.

6.4.2 Conclusions

When a medical professional trusts a salesperson of a manufacturer, he/she will most certainly trust the manufacturer.

6.4.3 Recommendations

It is important for companies to employ trustworthy salespeople who will not bring their name into jeopardy. Optimal screening and interview procedures need to be followed. Following up on previous employer references could also help to indicate whether a person is trustworthy.

6.5 Trust in the Manufacturer and the Influence on Brand Commitment

6.5.1 Findings

Trust in a manufacturer is a positive influence of brand commitment for doctors and pharmacists. However it is a much stronger predictor of trust for doctors.

6.5.2 Conclusions

The amount of trust that a medical professional has for a manufacturer will determine the level of commitment they have to the manufacturer's brand. For doctors trust in the manufacturer is the ultimate influencer of their commitment to a certain brand.

6.5.3 Recommendations

Pharmaceutical companies need to increase and maintain the level of trust they have with their business-to-business customers. There are different ways in which companies can increase and maintain their level of trust in medical professionals.

When a company constantly delivers on their promises and maintains a level of good service over a long period of time, it will most certainly increase the level of trust that medical professionals have for them. Loyalty and ethics are two more factors which can predict the level of trust medical professionals have for manufacturers.

6.6 Brand Identification and the Relation to Brand Commitment

6.6.1 Findings

Brand Identification plays a significant role in determining brand commitment for both doctors and pharmacists.

6.6.2 Conclusions

The more enthusiastic a medical professional is to identify with a brand, the better the chances are that he/she will be committed to the given brand.

6.6.3 Recommendations

In order to increase Brand Commitment pharmaceutical companies need to find ways to increase brand identification with their business-to-business customers. There are various ways in which brand identification can be increased. Making the brand more visible in the doctor's room will help to create brand identification. Branded pens, note pads, mouse pads, coffee cups, tongue depressors, candy for children and even bedding can help to remind a doctor of a product.

The same utensils as mentioned above can be used in a pharmacy context to create visibility and brand identification. However in a pharmacy visibility can be taken to a next level by branding the pharmacy windows with a certain product. Providing the pharmacists with branded work shirts has also delivered great results in pharmacies.

6.7 Trust in the Manufacturer, Brand Commitment and Brand Identification as Predictors of Brand Advocacy

6.7.1 Findings

Contributors of brand advocacy indicated some notable invariances between doctors and pharmacists.

With pharmacists all 3 determinants, trust in the manufacturer, brand commitment and brand identification played a significant role in influencing brand advocacy. Although the three determinants all showed a big contribution to brand advocacy, brand commitment is the strongest influencer.

With doctors it was established that only trust in the manufacturer and brand commitment can be approved as contributors of brand advocacy. Of these two contributors, trust in the manufacturer is the overwhelming contributor. Brand identification did not significantly influence brand advocacy in the doctor cohort.

6.7.2 Conclusions

Some manufacturers use the same methods to increase brand advocacy with doctors and pharmacists. However this study clearly indicated that the predictors of brand advocacy in these two groups of customers differ.

All 3 determinants play an important role in establishing brand advocacy with pharmacists. Trust in the manufacturer has the strongest influence on brand advocacy for doctors. Brand commitment is a small contributor. Although brand identification does not directly influence brand advocacy, it is a positive influence on brand commitment which is a secondary contributor of brand advocacy.

6.7.3 Recommendations

Pharmaceutical manufacturers need to differentiate between the processes of creating brand advocacy among doctors and pharmacists. In order to establish brand advocacy under pharmacists, manufacturers need to give equal attention to all 3 determinants.

Almost all attention can be placed on establishing and maintaining trust when manufacturers poise to create brand advocates out of doctors. Less attention can be placed on brand commitment. In order to improve brand commitment, manufacturers can work on increasing brand identification.

6.8 Limitations of the Study and Future Research

The small sample size especially in the doctor cohort is a limitation to the study. Even though the study did deliver the desired results, more information could have been collected if the sample size were bigger. The difficulty in getting a medical practitioner to complete a questionnaire contributed to the small sample size.

The method of leaving the questionnaire with the doctor and collecting it at a later stage did not deliver results. It is therefore suggested for future research that the researcher should wait while the doctor completes the questionnaire. The most questionnaires were received back when doctors participated in breakfast trainings of representatives. During this period the representative has at least half an hour to spend with the doctors.

Another limitation of the study is that the questionnaires only focused on one brand. This brand does not feature in all the different healthcare categories. Therefore it is possible that a medical professional can have a different point of view when answering questions on different treatment brands. Most of the products in this brand are over the counter medication.

The study indicated that expertise did not influence brand advocacy. It may be possible that expertise can have a bigger influence on brand advocacy when looking at schedule medicines. Therefore it is suggested for future research that the questionnaires should be based on more than one brand or company. It is also suggested that the brands should represent a bigger amount of the medicine category.

6.9 Summary

This study has presented an outline of effects on whether the key determinants of brand advocacy are invariant between doctors and pharmacists. It was established that there are in fact significant differences between the predictors of brand advocacy between doctors and pharmacists. By following some of the recommendations made in this study, manufacturers can avoid making the mistake of using the same processes of increasing brand advocacy between doctors and pharmacists. The study clearly indicated that different processes will deliver more desirable results.

List of References

- Griffiths, S. (2007) 'Pharmaceutical branding: To brand or not to brand', *Journal of Medical Marketing*, 8(2), pp. 113-118.
- Kanitz, C. and Burmann, C. (2012) 'The challenge of pharmaceutical brand architecture: A theoretical analysis based on the brand architecture model', *The Marketing Review*, 12(3), pp. 309-326.
- Keller, E. (2007) 'Unleashing the power of word-of-mouth: Creating brand advocacy to drive growth', *Journal of Advertising Research*, pp. 448-452.
- Agrawal, R. and Gaur, S. (2012) 'Determining customer loyalty: Review and model', *The Marketing Review*, 12(3), pp. 275-289.
- Kim, J. and Morris, D. (2008) 'Antecedents of true brand loyalty', *Journal of Advertising*, 37(2), pp. 99-117.
- Fullerton, G. (2005) 'The impact of brand commitment on loyalty to retail service brands', *Canadian Journal of Administrative Sciences*, 22(2), pp. 97-110.
- Kumar, S. and Khan, B. (2014) 'Importance of brand loyalty, brand awareness and perceived quality parameters in building brand equity in the Indian pharmaceutical industry', *Journal of Medical Marketing*, 12(2), pp.81-92.
- Kirby, J. and Marsden, P. (2006) *Connected Marketing: Creating Brand Advocates*. Elsevier: Business and Economics.
- Badrinarayanan, V. and Laverie, A. (2013) 'The role of manufacturers salespeople in inducing brand advocacy by retail sales associates', *Journal of Marketing Theory and Practise*, 21(1), pp.58-70.
- Pharmaceuticals, Life Sciences and Biotechnology 2012, Wesgro, Available from: wesgro.co.za/.../2012-pharmaceuticals-life-sciences-and-biotechnology.

Bharadwaj, S., Tuli, K. and Bonfrer, A. 2006. The Impact of Brand Quality on Shareholder Wealth. Singapore Management University.

Fullerton, G. 2014. Creating advocates: The roles of satisfaction, trust and commitment. *Journal of Retailing and Consumer Services*, 18(2011)92–100.

Guenzi, P. and Georges, L. 2014. Interpersonal trust in commercial. *European Journal of Marketing*, Vol. 44 No. 1/2, 2010.

Kennedy, M., Ferrell, L. and Leclair, D. 2001. Consumers' trust of salesperson and manufacturer: an empirical study. *Journal of Business Research* 51 (2001) 73± 86.

Kuenzel, S. and Halliday, S. 2010. The chain of effects from reputation. *Journal of Targeting, Measurement and Analysis for Marketing* (2010), 18, 167 – 176.

Lam, S. and Ahearne, M. 2013. Exploring the dynamics of antecedents to consumer–brand. *Academy of Marketing Science* 2012, (2013) 41:234–252.

Nicholson, C. 2001. The role of interpersonal liking in building trust in long-term channel relationships. *Journal of academy of marketing science*, volume 29.

Stockburger, N. 2014. Drivers of consumer-brand identification. *International journal of research marketing*.

Turri, A. and Smith, K. 2013. Developing Affective Brand Commitment Through Social Media. *Journal of Electronic Commerce Research*, VOL 14, NO 3, 2013.

Tuškej, U. and Golob, U. 2013. The role of consumer–brand identification in building brand relationships. *Journal of Business Research*, 66 (2013) 53–59.

Wagner, S., Coley, L. and Lindemann, E. 2011. Effects of suppliers' reputation on the future of buyer-supplier relationships. *Journal of Supply Chain Management*.

Agrawal, R., Gaur, S. and Narayanan, A. 2012. Determining customer loyalty: Review and model. *The Marketing Review*, , 2012, Vol. 12, No. 3, pp. 275-289.

Evaluategroup.com. 2014. Login | Evaluate. [online] Available at: <http://www.evaluategroup.com/Public/PressReleases/Return-to-Growth-for-Pharmaceutical-Sector-World-Preview-2013-Outlook-to-2018.aspx> [Accessed: 9 Nov 2014].

Faculty.ucr.edu. 2014. Sociology 203B Cronbach's Alpha example. [online] Available at: <http://faculty.ucr.edu/~hanneman/soc203b/examples/alpha.html> [Accessed: 9 Nov 2014].

Griffiths, S. 2008. Pharmaceutical branding: TO BRAND OR NOT TO BRAND. *Journal of Medical Marketing*, (2008) 8, 113 – 118.

Irs.gov. 2014. Pharmaceutical Industry Overview. [online] Available at: <http://www.irs.gov/Businesses/Pharmaceutical-Industry-Overview> [Accessed: 9 Nov 2014].

Kanitz, C. and Burmann, C. 2014. The challenge of pharmaceutical brand architecture:. *The Marketing Review*,, , 2012, Vol. 12, No. 3, pp. 309-326.

KELLER, E. 2007. Unleashing the Power of Word-of-mouth:. *JOURNAL OF ADVERTISING RESEARCH*.

Kim, J., Morris, J. and Swait, J. 2014. Antecedents of True Brand Loyalty. *Journal of Advertising*,, 37, no. 2 (Summer 2008), pp. 99–117.

Li, R. and Petrick, J. 2008. Examining the Antecedents of Brand Loyalty from an Investment Model Perspective. *Journal of Travel Research*, Jul 15, 2008.

Listtoptens.com. 2014. Top 10 Best Pharmaceutical Companies In 2014 | List Top Tens. [online] Available at: <http://listtoptens.com/top-10-best-pharmaceutical-companies-in-2014/> [Accessed: 9 Nov 2014].

Miter.mit.edu. 2010. From Bench to Boardroom: Historical Developments in the Pharmaceutical Industry | The MIT Entrepreneurship Review. [online] Available at: <http://miter.mit.edu/articlebench-boardroom-historical-developments-pharmaceutical-industry/> [Accessed: 9 Nov 2014].

Noor, W. and Kleinrock, M. 2013. Pharma Exec 2013. [online] Available at: <http://www.imsconsultinggroup.com/deployedfiles/consulting/Global/Content/How%20We%20Help/Strategy%20&%20Portfolio/PharmExec-pharma50.pdf> [Accessed: 9 Nov 2014].

pharmaphorum. 2010. A history of: The pharmaceutical industry. [online] Available at: <http://www.pharmaphorum.com/articles/a-history-of-the-pharmaceutical-industry> [Accessed: 9 Nov 2014].

Pubs.acs.org. 2014. Top Pharmaceuticals: Introduction: EMERGENCE OF PHARMACEUTICAL SCIENCE AND INDUSTRY: 1870-1930. [online] Available at: <https://pubs.acs.org/cen/coverstory/83/8325/8325emergence.html> [Accessed: 9 Nov 2014].

Reportlinker.com. 2014. Pharmaceutical Industry Market Research & Statistics. [online] Available at: <http://www.reportlinker.com/ci02257/Pharmaceutical.html> [Accessed: 9 Nov 2014].

Socialresearchmethods.net. 2014. Non-probability Sampling. [online] Available at: <http://www.socialresearchmethods.net/kb/samprnon.php> [Accessed: 9 Nov 2014].

Unknown. 2014. [online] Available at: <http://www.deloitte.com/assets/Dcom-Turkey/Local%20Assets/Documents/dttl-lshc-2014-global-life-sciences-sector-report.pdf> [Accessed: 9 Nov 2014].

Venturenavigator.co.uk. 2014. A Recent History Of The Pharmaceutical Industry - Based On All Five Forces. [online] Available at: http://www.venturenavigator.co.uk/content/porters_five_forces_pharmaceutical_industry [Accessed: 9 Nov 2014].

Appendix

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MANAGEMENT SCIENCES
EKONOMIESE EN
BESTUURSWETENSAPPE

2014-07-01

Dear Doctor

I, Alwyn Vorster, am a final year MBA student at the University of the Free State. To obtain my MBA degree at the end of 2014 I must successfully complete a field study project. Given that my current employment is as a sales representative for Reckitt Benckiser (RB), my field study investigates brand advocacy behavior by medical professionals such as yourself.

By completing this questionnaire you will play a vital role in the success of the study. The completion of the questionnaire should not take more than 10 minutes. There are no personal identifiers in the questionnaire; hence you can be assured of total anonymity. Furthermore, the data collected will only be used for the purpose of the field study. There is no right or wrong answers. So, please provide your honest opinion to each question.

I recognise that medical professionals are very busy individuals. Therefore, my appreciation for each completed questionnaire is very high.

Should you have any questions regarding the questionnaire, please feel free to contact me via email at alwyn.vorster@RB.com or call me at 082 783 3351. Due to the time constraints of this project I will need all the questionnaires to be collected before the 6th of August 2014.

Once again, be assured of my appreciation of your participation in the survey.

Best

ALWYN VORSTER

DR JACQUES NEL

(STUDENT)

(MBA FIELD STUDY SUPERVISOR)

Questionnaire

Section A: Demographic information

Instructions: Please mark the appropriate option with a cross (X) or provide an answer in the space provided.

Age in years:

Gender

Male

☐
☐

Female

Number of years practicing as a medical professional:

City/Town of practice:

Are you a general practitioner?

Yes

☐
☐

No

If not a general practitioner, please specify specialty:

Section B: Brand advocacy behavior

Instructions: Please rate each of the following statements on the following scale: 1 –Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4-Neither agree, nor disagree, 5-Somewhat agree, 6-Agree and 7-Strongly agree. Make a cross (x) in the block that best reflects your opinion.

Question 1:

	1	2	3	4	5	6	7
RB's products are the first products I prescribe to patients who have the relevant symptoms							
I often prescribe products of RB							
When patients approach me for advice, I prescribe RB's products							

Question 2:

	1	2	3	4	5	6	7
I enjoy association with the RB brand							
I have positive feelings towards RB and therefore I will continue to prescribe their products.							
I am loyal to RB							
I expect to prescribe new products from RB							
I would continue prescribing RB's products.							

Question 3:

	1	2	3	4	5	6	7
As a manufacturer of pharmaceutical products, RB has a good reputation							
As a manufacturer of pharmaceutical products, RB is honest							
Based upon previous experiences , I can say that I have much trust in RB							

Question 4:

The RB representative...

	1	2	3	4	5	6	7
...have been frank in dealing with me							
...is completely open in dealing with me							
...is trustworthy							
...has high integrity							

Question 5:

RB's successes are my successes							
I am interested in what others think about RB							
When someone praises RB, it feels like a personal compliment							

Question 6:

The RB representative...

	1	2	3	4	5	6	7
...spends considerable time getting to know me							
...is someone I like having around							
...is always nice to me							

Question 7:

Compared to representatives of other manufacturers, the RB representative...

	1	2	3	4	5	6	7
...is very knowledgeable							
...knows his or her product line very well							
...is an expert in his/her field							

Question 8:

RB's representative...

	1	2	3	4	5	6	7
...values my contribution							
...appreciates any extra effort from me							
...listens to any complaints I might have							

Question 9:

	1	2	3	4	5	6	7
RB is known to be concerned about doctors							
RB is considered by most doctors as fair							
RB addresses the needs of its customers and consumers							

Question 10:

The information that RB provides me with is...

	1	2	3	4	5	6	7
...timely							
...adequate							
...accurate							

Question 11:

RB products...

	1	2	3	4	5	6	7
...are reliable							
...are advanced							
...are effective in treating specific symptoms							

Question 12:

	1	2	3	4	5	6	7
I am very committed to RB's products							
I believe that RB's products deserve my maximum effort							
I would be willing to make further investment of my time and energy to support RB's products							

Thank you for your participation

2014-07-01

Dear Pharmacist

I, Alwyn Vorster, am a final year MBA student at the University of the Free State. To obtain my MBA degree at the end of 2014 I must successfully complete a field study project. Given that my current employment is as a sales representative for Reckitt Benckiser (RB), my field study investigates brand advocacy behavior by medical professionals such as yourself.

By completing this questionnaire you will play a vital role in the success of the study. The completion of the questionnaire should not take more than 10 minutes. There are no personal identifiers in the questionnaire; hence you can be assured of total anonymity. Furthermore, the data collected will only be used for the purpose of the field study. There is no right or wrong answers. So, please provide your honest opinion to each question.

I recognise that medical professionals are very busy individuals. Therefore, my appreciation for each completed questionnaire is very high.

Should you have any questions regarding the questionnaire, please feel free to contact me via email at alwyn.vorster@RB.com or call me at 082 783 3351. Due to the time constraints of this project I will need all the questionnaires to be collected before the 6th of August 2014.

Once again, be assured of my appreciation of your participation in the survey.

Best



**ALWYN VORSTER
(STUDENT)**



**DR JACQUES NEL
(MBA FIELD STUDY SUPERVISOR)**

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Age in years:

Gender

Male

Female

Number of years working as a pharmacist:

City/Town of work:

Type of pharmacist:

Permanent

Locum

Section B: Brand advocacy behavior

Instructions: Please rate each of the following statements on the following scale: 1 –Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4-Neither agree, nor disagree, 5-Somewhat agree, 6-Agree and 7-Strongly agree. Make a cross (x) in the block that best reflects your opinion.

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