



**SCHOOL OF MANAGMNT STUDIES
Indira Gandhi National Open University (IGNOU)**

**INFLUENCE OF PROMOTIONAL MATERIALS ON
DRUG PRESCRIPTION**

**A COMPARATIVE STUDY BETWEEN GOVERNMENT AND PRIVATE
HEALTH INSTITUTIONS IN ADDIS ABABA, ETHIOPIA**

By

**WONDWOSSEN HABTAMU SHIBESHI
(ID1051353)**

**APRIL 2016
ADDIS ABABA**



INFLUENCE OF PROMOTIONAL MATERIALS ON DRUG PRESCRIPTION

**A COMPARATIVE STUDY BETWEEN GOVERNMENT AND PRIVATE
HEALTH INSTITUTIONS IN ADDIS ABABA, ETHIOPIA**

**By
WONDWOSSEN HABTAMU SHIBESHI
(ID1051353)**

**A THESIS SUBMITTED TO SCHOOL OF MANAGMNT STUDIES
INDIRA GANDHI NATIONAL OPEN UNIVERSITY (IGNOU) IN
PARTIAL FULFULMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF BUSINESS ADMINISTRATION**

**APRIL 2016
ADDIS ABABA**

CERTIFICATE OF ORIGINALITY

This is to certify that the project titled **INFLUENCE OF PROMOTIONAL MATERIALS ON DRUG PRESCRIPTION:**

“A comparative study between government and private health institutions in Addis Ababa, Ethiopia” Is an original work of the student and being submitted in partial fulfillment for the award of master’s degree in business administration of Indira Gandhi National Open University This project has not been submitted earlier either to this university or to any other university/institution for fulfillment of the requirement of a course of study

Signature of the supervisor

Signature of Student

Place Addis Ababa,ETHIOPIA

Tel, Mobile +251912156823

E-mail: mesfinL38@yahoo.com

Date 28/04/2016

Place Addis Ababa, ETHIOPIA

PO BOX 2747 CODE 1250

Tel, Mobile +251911514595

wondyie2001@yahoo.com

Date 28/04/2016

ACKNOWLEDGEMENT

I would first like to thank my thesis advisor Dr Mesfin Lemma, Associate professor at, School of Management Studies Indira Gandhi National Open University (IGNOU). The door to Dr Mesfin office was always open whenever I ran into a trouble spot or had a question about my thesis. He consistently allowed this paper to be my own work, but steered me in the right direction whenever he thought I needed it.

I would also like to acknowledge Zelalem Yilma (PhD), Program Officer at PICO-EA as the second reader of this thesis, and I am gratefully indebted to his valuable comments on this thesis.

I would also like to thank the whole staffs of **LOPHA** Pharmaceuticals who were involved in the validation of this research project without their passionate support and input; the thesis could not have been successfully conducted.

Finally, I must express my very profound gratitude to my wife, Sirashwork Assefa for providing me with unfailing support and continuous encouragement throughout my study. Leul,Eyoel,Emma and Ezana you are my endurance, Thank you all !

Dedication to my Mother

My Hero!

This is a special page made especially for my Mother. She is to me my rock. She is by far the strongest woman I have ever known. She has had many trials in her life and tragedy's, yet she overcomes all of them and becomes even stronger than before. I remember as I think back on hard times the strength she had. I remember always saying to her, you're so strong Mom, How do you do it? How do you go on? Yet her strength always kept her moving forward. She has been the rock for the whole family. She is there for us 100%, no questions asked.

I can imagine the burden she has been shouldering!

Mom, words can never express the deepest gratitude I have for you. You have been there for my whole life and I love you so much for it. I mostly admire and love you for the person YOU are!

TABLE OF CONTENTS

CERTIFICATE OF ORIGINALITY	i
ACKNOWLEDGEMENT	ii
TABLE OF CONTENTS.....	iv
LIST OF FIGURES.....	vi
LIST OF TABLES	vii
ACRONYMS AND ABBREVIATIONS.....	viii
ABSTRACT	ix
CHAPTER I: INTRODUCTION	1
1.1. Background of the Study	1
1.2. Statement of the Problem.....	2
1.3. Basic Research Questions	3
1.4. Objectives of the Study	3
1.5. Significance of the Study	4
1.6. Scope of the Study	4
1.7. Limitation of the Study.....	4
1.8. Definition of Terms.....	4
1.9. Organization of the Paper.....	6
CHAPTER II: LITERATURE REVIEW.....	7
2.1. Concepts of product promotion and legal frameworks	7
2.1.1. Concept of product promotion	7
2.1.2. Drug promotion regulatory framework.....	8
2.2. Business marketing concepts helpful in promoting a business.....	12
2.2.1. Marketing planning	12
2.2.2. Marketing materials, tools and strategy	13
2.2.3. Marketing support and unique marketing ideas.....	16
2.3. Overview of retail marketing strategy and tactics	16
2.3.1. Getting into the consumer	17
2.3.2. Influencing existing customers to purchase more drugs.....	17
2.4. The influence of drug promotion strategy, and drug promotional material gifts on drug prescription.....	18
2.4.1. Drug promotion and promotional materials.....	19
2.4.2. Promotional materials and their influence.....	19
2.4.3. Drug prescription and abuse	19
2.4.4. Current status of drug promotion and promotional gifts in Ethiopia.....	23

2.5. Empirical Review	25
CHAPTER III. RESEARCH DESIGN AND METHODS	27
3.1. Research Design	27
3.2. Data Source	27
3.3. Population and Sample Size	27
3.4. Sampling Technique	28
3.5. Data Collection Tool	28
3.6 Validity and reliability	29
3.7 Data Analysis Methods	29
3.8. Ethical Consideration	29
CHAPTER IV: RESULTS AND DISCUSSION.....	30
4.1 Respondent Demographic Characteristics.....	30
4.2 Preference of drug prescribers and promoters on the use of drug brand versus generic names	30
4.3 Respondent drug prescribers' attitude towards drug promotion	31
4.4 Respondent drug promoters' attitude towards drug promotion.....	32
4.5 Attitude of drug prescribers and promoters towards drug promotion and promotional material gifts	33
4.6 Level of drug prescribers' and promoters' satisfaction of drug promotion.....	34
CHAPTER V: SUMMARY, CONCLUSION AND RECOMMENDATION.....	36
5.1. Summary of Key Findings	36
5.2. Conclusion.....	36
5.3. Recommendation.....	37
Annex.....	40

LIST OF FIGURES

Figure 1 An illustration of spectrum of prescription drug abuse 21

Figure 2 Samples of low cost drug promotional material gifts offered to drug prescribers..... 24

Figure 3 A medium cost drug promotional material sample gift to the prescriber 24

Figure 4 Prescribers' and promoters' level of preference to the use of generic name 31

Figure 5 Prescribers' and promoters' level of preference to Brand Name 31

Figure 6 Sample respondent prescribers' and promoters' level of satisfaction on their overall experience in drug promotion 35

Figure 7 Sample respondent prescribers' and promoters' level of dissatisfaction on their overall experience in drug promotion 35

LIST OF TABLES

Table 1 Sampling layout of respondents by category..... 28

Table 2 Prescribers' attitude towards drug promotion and drug promotional material gifts by promoters 32

Table 3 Promoters' attitude towards their drug promotion strategy and drug promotional material gifts 33

Table 4 Prescribers and promoters attitude towards drug promotion and drug promotional material gifts 34

ACRONYMS AND ABBREVIATIONS

DTCA:	Direct-To-Consumer Advertising
DTD:	Direct-To-Doctor
FMHACA:	Food, Medicine and Health Care Administrations and Control Authority
USP:	Unique Selling Proposition
WHO:	World Health Organization
OTC:	Over-The-Counter
ADHD:	Attention Deficit Hyperactivity Disorder
CNS:	Central Nervous System
GHB:	Gamma Hydroxybutyrate
PCP:	Phencyclidine

ABSTRACT

A survey study was conducted to understand the prevailing situation of drug promotional practices in Addis Ababa, Ethiopia as well as the relationship between drug promotional material gifts and drug prescription behaviors. For the study, human health professionals including doctors, pharmacists, health officers, first degree graduate nurses and others working in both public and private health institutions were considered. Among the total 200 sample respondents, 100 were drug promoters; while the remaining 100 being drug prescribers. The data generated were also supported by relevant information from available sources. Indicator factors that were considered to help in understanding whether drug promotional material gifts influence the behavior of drug prescribers include preference in the use of drug generic name versus brand name; frequency of contact between drug promoters and prescribers and drug promotional material gifts offered/received; the comprehensiveness and value of drug information contained in gifts; the need of promotion and promotional material gifts for drugs; the monetary value of promotional gifts; and the influence of drug promotional material gifts offered to drug prescribers on their drug prescription behavior.

As the findings depict, the use of drug generic names was the most preferred prescription ways by most of both drug prescribers and promoters compared with the use of drug brand names. Ninety-nine percent of the interviewed drug promoters reported to have contacted prescribers; while all respondent prescribers were reportedly contacted by promoters. Most (97%) of the respondents of both sample groups were of the opinion that drug information provided along with drug promotional gifts to be full and comprehensive, with the same proportion (97%) of the sample promoters also reporting that the gifts are relevant to the drug. Although, 97% of both respondent drug promoters and prescribers reported that promotion and promotional material gifts are needed for drugs, they were of the opinion that the monetary value of the gifts should be small. Over 98% of both respondent promoters and prescribers were also convinced that the information contained in drug promotional material gifts add value to the pharmaceutical knowledge of the prescribers. As perceived during the current study, drug promotion coupled with promotional material gifts by drug companies/promoters influence the prescription behavior of drug prescribers, which is generally more marked in private health institutions compared with that of the government. This should call for further targeted study and attention on the issue in Ethiopia, so that patients will not be subjected to high medication costs in face of the rising tendency of price of pharmaceutical products.

Keywords: *Drug, gifts, health institutions, health professionals, prescription, promotion*

CHAPTER I: INTRODUCTION

This chapter summarizes key background information of the study under various sections. These include: background of the study; problem statement and research questions; study objectives and significance; scope and limitations of the study; and definition of important terms used in the paper. Organization of the paper is also briefly presented.

1.1. Background of the Study

In Ethiopia, drug promotion is practiced only by pharmacists who are certified for their competence and authorized by Food, Medicine and Health Care Administrations and Control Authority (FMHACA), which is an accredited governmental body responsible for the issuance of certificate for drug promotion. Only medical professionals who are guaranteed a certificate of competence from the authority are entitled to promote drugs to health professionals.

In face of the huge demand for pharmaceutical products, which in turn is related to the high human population, domestic production is way behind satisfying the demand. Currently, there are only 5 drug manufacturing companies in Ethiopia, three of them are owned by the government, while the remaining two being privately owned. Though Ethiopia exports small quantities of drugs to one African country namely south Sudan, the country considered as is a net importer of pharmaceutical products. This is because, medicines produced by the five manufacturing companies satisfy only 15% of the total national requirement of medicines with the remaining 90% of the requirement being addressed by imports from several countries. Drugs are imported mainly from several countries of Europe, India, China, USA, Turkey, and United Arab Emirates (UAE) (EFMHCACA, 2008).

In developing countries, the systems and resources required to effectively monitor and regulate the marketing of medicines are not necessarily in place. As indicated by Norris *et al.* (2005), in 2004, the World Health Organization reported that less than one-sixth of all the countries around the world had a well-developed system of drug regulation, and one-third had little to no regulatory capacity. Therefore, frameworks to enforce unethical, irresponsible or even illegal promotion to consumers are a major problem in the context of developing and emerging economy countries.

Focusing on the influence of material gifts related to drug promotion, this research report would enable all the concerned and interested to understand the promotional strategies followed by drug promoters, attitudes and responses of drug prescribers towards these promotional activities and the influence of offering material gifts to drug prescribers as promotional strategy on their prescribing behavior.

The findings of the study could therefore create and/or strengthen awareness among pharmacists; medical educators and students; drug manufacturers, importers, wholesalers and prescribers; patients as well as all other concerned individuals and institutions. The report should also be of help to policy makers and regulators in addressing some of the problems related to the violation of professional and legal responsibilities by pharmacists and other health practitioners. Moreover, the findings of this study should provide baseline information on the topic, which might be of help for further research and development intervention efforts.

1.2. Statement of the Problem

Though drug promotional activities are considered important, it should be done within a well regulated legal framework. It can widely be observed that drug promotional material gifts are offered to drug prescribers. However, it is not clear or unknown whether such drug promotional activities conform to a legal framework if it exists or against. In most cases, drug prescribers tend to prescribe drugs promoted that are accompanied by drug promotional material gifts. In most developing countries such as Ethiopia, legal drug promotional activities, level of awareness about drug promotion among drug prescribers such as pharmacists as well as related drug prescription behaviors are not yet well regulated but mostly practiced haphazardly. This approach, unlike in many developed countries, appears to be illegal as far as drug promotion is concerned. The assumption is that such illegal drug promotional activities being practiced in Ethiopia can represent the following restraints:

- Drug promotional material gifts may not have any relation to prescribed drugs
- Drug promotional material gifts can influence drug prescribers on prescription decision making
- Sample brand drug samples offered to drug prescribers as drug promotional material gifts can be sold

- It can also be observed that some private and public hospitals and other health centers are also violating the promoter's professional responsibilities for the sake of personal interest

The purpose of this research report was, therefore, to support with evidence the aforementioned assumed and observed illegal drug promotion related activities and their influences on drug prescription.

1.3. Basic Research Questions

1. How do drug promotional strategies followed by various drug promoters operating in Addis Ababa look like?
2. How could the motivation and intention of drug promoters in drug promotion be appraised?
3. How does the behavior of drug prescribers in response to drug promotional material gifts offered to them in relation to specific drugs look like?
4. What is the difference between Government and Private Health Institutions in Addis Ababa in terms of the level of influence of drug promotion and promotional material gifts on drug prescription behavior of prescribers?

1.4. Objectives of the Study

General Objective:

The main objective of this study is to investigate the influence of promotional materials on drug prescription as a comparative study between government and private health institutions in Addis Ababa, Ethiopia

Specific Objectives:

1. To assess drug promotional strategies followed by various drug promoters
2. To appraise the motivation and intention of drug promoters in their act (drug promotion)
3. To understand the behavior of drug prescribers in response to drug promotional material gifts offered to them in relation to specific drugs
4. To compare the level of influence of drug promotion and promotional material gifts between Government and Private Health Institutions in Addis Ababa

1.5. Significance of the Study

Through generating and providing evidence based information on the prevailing situation of drug promotional practices as well as the relationship between drug promotional material gifts offered to drug prescribers and their drug prescription behavior, the findings of this study should help in creating awareness among drug promoters, prescribers as well as consumers; and contribute to drug promotion legal framework revision and development.

1.6. Scope of the Study

The scope of the current study can best be described based on the geographical area coverage; target health professionals and institutions; as well as study objective and information collection tools used. Accordingly, the study targeted relevant health professionals such as physicians and health officers that, during the time of the study, were working in Governmental and Private Health Institutions operating in Addis Ababa. The major intention of the study was to understand the influence of drug promotion in general and drug promotional material gifts offered to drug prescribing health professionals in particular on their drug prescribing behavior. A pre-tested semi-structured questionnaire was the tool used to collect the required information from the various target groups.

1.7. Limitation of the Study

As this study was planned and carried out in partial fulfillment of securing a Master's Degree in Business Administration; the scope of the study in terms of intention, geographical coverage, budget, and study duration was limited. The key findings that are based on data collected from sample respondents and highlighted in this report therefore are localized and reflect the situation in Addis Ababa. Similar research efforts targeting at least major regional cities and towns are appropriate to generate comprehensive data that could provide adequate information at national level that are essential in taking the necessary measures.

1.8. Definition of Terms

Authority: Food, Medicine & Health Care Administration and Control Authority.

Drug promotion: Any representation such as sound, word, sign, image, electronics or other means whatsoever used for the purpose of promoting directly or indirectly the prescription, sale or dispense of any drug.

Drug: Any substance or mixture of substances or medical equipment or supplies, used for human and animal health care (i.e. diagnosis, treatment, mitigation or prevention of diseases or symptoms) including poisons, narcotics and psychotropic substances, chemicals, blood and blood products, vaccines, sera, radioactive pharmaceuticals, medicated cosmetics and sanitary products, household and industrial pesticides, medicated food stuffs, and Animal feed additives.

Generic drugs: Drugs that are no longer protected by patents, and are marketed by companies that have usually not developed the drugs themselves

Health professional: Medical practitioners and veterinaries, Health officers, Pharmacists and druggists.

Impulse sale: Refers to a situation where consumers purchase items in substantial diversity and quantity that were not on their original shopping list.

Medical representative: A representative of a medical manufacturing firm directly or through the distributor, licensed by the Authority to conduct promotional activities through provision of information on the drugs manufactured by the firm.

Patent: A set of exclusive rights granted for a fixed period of time in exchange for the regulation and public disclosure of certain details of an invention

Prescription drug: A pharmaceutical drug that legally requires a medical prescription to be dispensed

Rational drug use: A principle that seeks to ensure that people receive medications that take into account best available clinical evidence of efficacy and safety, appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community

Samples: Units of prescription drugs that are not intended for sale. Samples are often provided free of cost by a drug company as a promotional tactic to increase eventual sales figures

1.9. Organization of the Paper

This research report is organized under six chapters: Chapter I focus on general background information and analysis relevant to drug promotion strategies and drug prescription, general and specific objectives, and significance, scope and limitation of the study. Definition of key terms referred in the report is also briefly presented in this chapter. Chapter II briefly describes the relevant information collected from available literature and synthesizes under various sub-titles. Chapter III briefly presents the approach/methodology used for the study. Chapter IV, on the other hand, highlights the key findings of the study; whereas Chapter V highlights the key findings of the study; and Chapter VI, based on the findings, concludes the report and suggests appropriate recommendations.

CHAPTER II: LITERATURE REVIEW

Under this chapter, available research reports that are relevant to the topic were critically reviewed and synthesized under various sub-titles that include: concept of product promotion and legal framework; business marketing concepts helpful in promoting a business; an overview of retail marketing strategy and tactics; and the influence of drug promotion strategies, and drug promotional material gifts on drug promotion.

2.1. Concepts of product promotion and legal frameworks

As described by Kokemuller (2007), promotion is the component of a company's marketing system that involves delivery of messages to target customers that emphasizes the benefits of their brand, products and services. A few common communication tools are used in a promotional plan. Goals of promotion include building brand awareness, creating favorable brand attitudes, gaining market share, inducing buying, building loyalty and growing sales. Ultimately, the heart of promotions is to reach the target audience with impacting messages about the brand. More details on the concept of product promotion as well as the components of drug promotion regulatory framework are summarized below.

2.1.1. Concept of product promotion

Trade promotion as part of a marketing strategy is an important component of a profitable business venture. Product promotion not only motivates consumers to make a trial but also can convert consumers into regular purchasers of the product and create an important Impulse sale – consumers purchasing items that were not on their original shopping list.

One universal business goal is to sell the business's products and services. This is usually best accomplished by positioning the business in front of the target audience, and offering something they can't refuse or find elsewhere. To this end, one of the smartest things business owners can do for their business is to take adequate time to develop a business marketing plan that will set them apart from the competition. A marketing plan clearly outlines how we will reach our ideal customers by effectively implementing our marketing strategy (Ziganshina, and Lexchin, 2014).

There are thousands of ways that one can promote his business. With the right mix of activities, one can identify and focus on the most effective marketing tactics for his

business. As reported by (Ehlers, 2015), drug promotion presents a challenging dilemma for regulatory authorities. On one hand, advertising and promotion are important sources of drug information. Physicians report that they often use promotion as a source of information about new drugs and this reliance increases further along their medical careers. In developing countries, drug promotion is particularly crucial where drug company sales representatives are often the most important source of information about new medicines. Studies have found that physicians rely heavily on industry based sources of information. On the other hand, there are safeties, public health and economic concerns over inappropriate promotion of drug use. Studies have shown that heavy promotion of new drugs can lead to miss-prescribing and overprescribing of drugs and can cause serious safety concerns. The promotion of newer, more expensive drugs can also lead to the displacement of older, less costly drugs without any evidence that the newer drugs are more effective.

2.1.2. Drug promotion regulatory framework

Legal issues of pharmaceutical promotion - Diversity and complexity

Although drug promotion is important, drug regulators must balance between encouraging promotion as a valuable tool to disseminate drug information and policing it to ensure its reliability and honesty. Such a balance act, however, presents several challenges. First, it can be difficult for a regulator to distinguish between reasonable and appropriate promotion and unethical and inappropriate promotion. Second, regulators often have limited authority, and correspondingly limited resources to regulate and enforce (Ehlers, 2015). The regulator's task is made even more difficult by the diversity of forms in which promotion can occur, including sales representatives, samples, broadcast and print media, sponsorship of educational events and conferences, books, journal articles, magazine and newspaper stories, drug bulletins and newsletters, videos, and the Internet.

There is a variety of opinions on drug promotion with different groups such as manufacturers, advertisers, media, doctors and patients having very different views and interests. Health professionals are exposed to many types of promotion in their daily work. To varying degrees, regulations exist to govern these activities in order to ensure proper prescribing and to protect public health.

The pharmaceutical industry provides a valuable and legitimate contribution to societies. At the same time, the pharmaceutical industry is a business and its profits are heavily dependent on marketing. The greater the volume of medicines sold, the greater the return on investments. Promotion is a key factor driving sales volumes. When product sales are given priority over public health, promotion can lead to over-prescribing as well as poor quality prescribing and medicine use. This, in turn, leads to an increased risk of adverse effects and higher healthcare costs. Prescribers often find themselves trapped between patients' needs and healthcare priorities on the one hand and promotional influences on the other. Dual allegiances and conflicts of interest can cloud judgment and cause distortions in both the delivery of health care and the conduct of research in medicine (AU, 2007).

Physicians, pharmacists, researchers, educators, managers and administrators need practical guidance on how to understand and manage their interactions with industry. At the same time, the pharmaceutical industry needs guidance about how to implement its marketing practices so that health outcomes are enhanced. The key ethical basis for any guidance is the understanding that the values of clinical care, of the welfare of society and of science should prevail over commercial imperatives and monetary concerns (AU, 2007).

A legal framework for regulation

Provisions in law governing pharmaceutical promotion usually include two key criteria concerning the information provided in advertising (Sandra, 2008). These are:

1. It must be consistent with approved product information and
2. It must not be deceptive or inaccurate

When a pharmaceutical product is approved for marketing, it should be accompanied by approved product information. This specifies the use or uses for which the medicine has been approved (indication), dosage and administration, precautions and warnings and information on contra-indications, adverse effects and interactions with other medicines.

For manufacturers' advertising to be consistent with approved product information, it must stick to approved indications and conditions of use. For example, if a medicine has only been approved for epilepsy, a manufacturer may not advertise it for bipolar disorder or depression. Physicians, on the other hand, can legally prescribe a

medicine for whatever use they wish, within restrictions that may be imposed by employers and institutions. Prescribing for an unapproved use is called 'off-label prescribing'. This is often legitimate. For example, for many illnesses, there are no medicines approved for use in children. A manufacturer may apply for approval for an additional indication for its medicine. However, until that use is approved, the company cannot legally promote the medicine for that indication. A medicine may be approved for different uses in several countries, which also leads to variations in the promotional claims that can be made legally in different countries (Gray, Hoffman, and Mansfield, 2014).

In practice, when regulators decide whether advertising is deceptive or accurate, they often base the decision primarily on whether it is consistent with approved product information. Sometimes key public health concerns remain unaddressed. For example, advertising of newer, broad-spectrum antibiotics for everyday problems may lead to unnecessary prescribing and contribute to the unnecessary development of antibiotic resistance. These advertisements may be technically consistent with product labeling but be highly inadequate from a public health perspective.

Beyond prohibition of 'off-label' and deceptive advertising, national laws may also prohibit specific activities such as direct-to-consumer advertising (DTCA) of prescription medicines. Promotional activities such as gifts to physicians and pharmacists in exchange for prescriptions or attaining specific pharmacy sales volumes may be covered under other laws that are not specific to pharmaceutical marketing, such as anti-kickback or anti-corruption legislation.

Regulatory standards can also go beyond the presence or absence of information. For example in the US, a 'fair balance' is required of benefit and risk information. In practice, this means that information on the harmful effects of a medicine must be present in every part of the advertisement. In countries without this provision, the advertising copy does not always contain information on a medicine's risks.

Components of regulation of pharmaceutical promotion

As revealed by Sandra (2008), whether regulation of pharmaceutical promotion is carried out directly by government or through industry self-regulation, there are five key components:

1. National laws and regulations

2. The application of the law through codes and other standards
3. Monitoring of pharmaceutical promotion to ensure consistency with legal or other standards
4. Law enforcement with adequate sanctions to prevent violations and
5. Evaluation of regulatory effectiveness.

Even countries with adequate resources for regulatory oversight vary enormously in the extent to which they carry out any or all of these steps. There may be a law and a national code, but little enforcement and no sanctions for violations. In other cases, a functioning regulatory system is in place but no evaluation of regulatory effectiveness, for example, in ensuring that promotional claims support rational medicine use and public health goals. Ideally regular or ongoing evaluations should lead to changes in standards and the process of regulation, and these changes should, in turn, be evaluated. In practice, this rarely happens.

WHO ethical criteria

The World Health Organization (WHO) Ethical Criteria define promotion as “all informational and persuasive activities of manufacturers and distributors, the effect of which is to induce the prescription, supply, purchase and/or use of medicinal drugs” (Ratanawijitrasin and Eshetu, 2002). They were developed as the result of a consensus involving health professionals, drug regulatory agencies, consumers and the industry, and so represent a broader viewpoint on appropriate marketing practices than either industry or professional codes.

The main objective of the ethical criteria is to support and encourage the improvement of healthcare through the rational use of medicines. The ethical criteria do not have legal standing, but are intended for use as general principles to be adapted by national governments developing legislation and as a standard for voluntary code development. They also provide an international ethical standard against which regulatory procedures and promotional activities may be compared. Some key provisions of the WHO ethical criteria include the principle that:

1. Promotion should not be disguised as an educational or scientific activity
2. Undue advantage should not be taken of people’s concern for their health and
3. Generally DTCA of prescription medicines should not be permitted

Issues addressed by the WHO ethical criteria include: Advertising to physicians and other health professionals; Advertising in all forms to the general public; Medical representatives; Free samples; Symposia and other scientific meetings; Post-marketing scientific studies, surveillance and dissemination of information; Packaging and labeling; Information for patients: package inserts, leaflets and booklets; and Promotion of exported drugs. Lists are also provided of information that should be included in all advertising and promotion, including, for example, the medicine's brand and generic name, the name of the manufacturer and its approved indications. The aim is to ensure advertising provides a basic minimum of product information.

2.2. Business marketing concepts helpful in promoting a business

Business marketing is a marketing practice of individuals or organizations (including commercial businesses, governments and institutions). It allows them to sell products or services to other companies or organizations that resell them, use them in their products or services or use them to support their works. Business marketing is also known as industrial marketing or business-to-business (B2B) marketing. Despite sharing dynamics of organizational marketing with marketing to governments business-to-government marketing is different (Sandra, 2008). The major components of business marketing that include: marketing planning; marketing materials, tools and strategy; and marketing support and unique marketing ideas are briefly discussed below.

2.2.1. Marketing planning

A marketing plan is a comprehensive blueprint which outlines an organization's overall marketing efforts. A marketing process can be realized by the marketing mix. The marketing plan can function from two points: strategy and tactics. In most organizations, "strategic planning" is an annual process, typically covering just the year ahead. Occasionally, a few organizations may look at a practical plan which stretches three or more years ahead which also needs to revisit or start the marketing research and conducting a focus group with a unique selling proposition (USP) for a defined and target audience with expansion of the product and services offerings.

2.2.2. Marketing materials, tools and strategy

Sultana and Khosru (2011), in their report revealed the use of various materials, tools and strategies for promoting and marketing of drugs.

i. Business card

Eye-catching business cards are important and are among "first impression" marketing expenses you need to splurge on. A potential customer might not know you existed until you hand them a card, but the viability of hiring you can hinge on something as simple as font selection and color scheme.

ii. Other marketing items and tools

Company logo, address, tagline/motto and a picture of a ferocious bear: We do it with friendships and dating all the time, but it's often overlooked in the small business world. The first impression is a lasting one, so make sure to do it right. Get creative with promotional products and give them away at the next networking event that attend you've got the pretty letterhead. When your customers are sorting through their junk mail, make sure your correspondence doesn't get trashed. While preparing such marketing materials, make sure that you are creative in all aspects ranging from color designs to custom envelope sizes.

Brochure: A business person should create or update the brochure. Let's say our potential client doesn't have web access, and doesn't trust our business card alone. We're going to need some sort of printed document that says what we do. A professionally designed marketing document can change a "maybe" to "when can I give you money". Printed materials can really be anything we want, from brochures to one-pagers. The key is to look sharp and sound like we know our profession. So bullet or bold the parts we definitely want potential customers to read. Pretty pictures on our materials might even sell our business better than words, so we don't make any choices lightly and create a digital version of the brochure for the website.

Website: A business owner should explore a focused, well-designed website, as we are in a new era. Businesses are now defined by their online presence. Many potential customers will Google us before they even walk in our door. Consider a website for our first and best chance of making a sale. If our website looks outdated, under-developed, or lacking of basic functionality such as a web form for customers to contact us, then our visitors just might decide to hire our competitor instead. A

business website doesn't have to provide everything. What are needed most are a few essentials, such as information about the business, the services provided, and how customers can get in contact with concerned business representatives.

In-Person Networking: Networking in person is something that people take for granted all too often. Most people recognize that they interact with individuals all throughout their day. Networking is a culmination of many skills that transform an individual from being a “talker,” or someone with the “gift of gab,” to a “networker” that everyone wants to know and connect with. In-person networking can be done through registering for a conference, rent a booth, plan local business workshop, joining local chamber of commerce and self-introduction with other local business owners.

Direct Mail: Direct mail encompasses a wide variety of marketing materials, including brochures, catalogs, postcards, newsletters and sales letters. Major corporations know that direct-mail advertising is one of the most effective and profitable ways to reach out to new and existing clients. Contacting carefully targeted prospects with tailored offers or promotional materials such as brochures, newsletters, on one to one basis via ordinary mail, almost always carry a response mechanism such as a toll-free number, web site address, and/or a business-reply card. In this system, several promotional tools can be used that are known to launch a multi-piece of direct mail campaign; create multiple approaches, and split test the mailings to measure impact; include a clear and enticing call to action on every direct mail piece; use tear cards, inserts, props and attention-getting envelopes to make an impact with mailings; and send past customers free samples and other incentives to regain their business.

iii. **Advertising**

Advertising is the non-personal communication of information usually paid for and usually persuasive in nature about products, services or ideas by identified sponsors through the various media. There are two basic ways to sell anything: personally and non-personally. Personal selling requires the seller and the buyer to get together. There are advantages and disadvantages to this. The first advantage is time: the seller has time to discuss in detail everything about the product. The buyer has time to ask questions, get answers, and examine evidence for or against purchase. A second advantage of personal selling is that the seller can see you, see your face,

and see how the sales message is getting across. If you yawn or your eyes shift away, you're obviously bored, and the seller can change approach. Seller also sees if you're hooked, see what features or benefits have your attention, and emphasize them to close the sale. Finally, the seller can easily locate potential buyers. If you enter a store, you probably have an interest in something that store sells. Disadvantages do exist. Personal selling is, naturally enough, expensive, since it is labor-intensive and deals with only one buyer at a time. In addition, its advantage of time is also a disadvantage. Personal selling is time-consuming. Selling a stereo or a car can take days, and major computer and airplane sales can take years.

There are different methods of advertisements like Advertising on the radio, yellow pages, billboard, use of stickers or magnets to advertise on the car, take out an ad in the local newspaper, local cable TV station, social Medias like Facebook, LinkedIn, a relevant website and use of a sidewalk sign to promote the specials.

iv. **Internet Marketing**

Internet marketing can be set up through starting a Google awards pay-per-click campaign and Microsoft advertise center pay-per-click campaign so that to comment on a blog post; recording a video blog post; uploading a video to you tube; checking online directory listings and getting listed in desirable directories; setting up Google analytics on the web and blog; reviewing and measuring the set upped Google Analytics statistics; restoring a new domain name for a marketing campaign or a new product or service; learning more about local search marketing; and tracking the online reputation.

v. **Email Marketing**

To use email marketing, one needs to create an email opt-in on the website or blog; offer a free download or free gift to make people willing to add their email address; send regular emails to registered contact list; start a free monthly email newsletter; measure the effectiveness of the company email campaigns; perfect the email signature; and add audio, video and social sharing functionality to the emails.

vi. **Contests, Coupons and Incentives**

Start a contest, create a coupon, a "frequent buyer" rewards and client appreciation program by selecting customer of the month bases and give away to a free sample and start an affiliation program.

vii. Relationship Building

For a successful business venture it is important to create and maintain relationship with customers as well as the community. This can be achieved through sending out a customer satisfaction survey; asking for referrals and make a referral; helping in promoting or volunteering time for a charity event; and sponsoring a local sports team all cross-promoting the products and services with other local businesses. Relationship can also be created and maintained through joining a professional organization; planning the next holiday promotion and holiday gifts for the best customers; sending birthday cards to regular clients; approaching a colleague about collaboration; donating branded prizes for local fundraisers; and becoming a mentor.

2.2.3. Marketing support and unique marketing ideas

In order to run a successful business it is important to have a comprehensive team/workforce composed of competent professional mix that include a marketing consultant, a public relations professional, a professional copywriter, a search engine marketing firm, an intern to help with daily marketing tasks, and a sales coach or salesperson (Sandra, 2008).

Unique marketing ideas among others include getting a branded tattoo; creating a business mascot to help promote the brand; taking a controversial stance on a hot industry topic; paying for wearable advertising; getting a full-body branded paint job done on the company vehicle; and signing up for online business training to revamp, expand and fine tune all of the marketable skills.

2.3. Overview of retail marketing strategy and tactics

Key retail marketing strategies and tactics; which can be employed in getting into the consumer and influencing existing consumers to purchase more drugs (Consumer International, 2007; Mintzes, 2015); are highlighted as follows:

2.3.1. Getting into the consumer

When we have a relatively new product, we have to get placement or display outside of the normal department is a key strategy. In our Activation Markets, it is important that we get our staff on the ground to get placement outside of the stock where we are normally merchandised. This tactic helps to attract new people that have never seen our product.

2.3.2. Influencing existing customers to purchase more drugs

Customers can be driven to buy more products than their mere intention. This is possible mainly with products that can be paired with others items. For instance, microscope, in addition to being a great standalone, it's great for dipping and can be paired with slides, lancets, gloves, syringes etc. This example shows we are a great base for that like an appetizer. For such products, our demos should show people how to use it in more than one way.

Using promotional price points to get more customers for new products

It is all about the price point. Most retailers accept the multiple price point therefore we can use a 2 for 5 methods than 2.49 for each. If we have a 2-for type, it is almost guaranteed that every customer will buy the multiple.

Trade Commitment - getting the maximum number of shoppers near our brand

It all starts with having a relationship with retail buyers, supporting their important merchandising programs. Too many brands fail to ask "what is important to us as a retail buyer". If a certain promo is important to the retailer, we have to support them. The retailer may then be more inclined to support us in the future. Don't be "all about me... be all about us!"

Stopping the shopper - Big, Colorful and Simple

Our in-store displays need to be big enough to attract attention. It is suggested that arranging the display based on the colors of the packaging and create vertical or horizontal blocks. Additionally, we should have an assortment of our best seller on display. It absolutely makes our display shop-able! This is to mean grab multiple bags or products without the display falling apart always are cognizant of store volume when we build a display. Our display should be able to survive several hours of shopping before a refill is needed.

Customer count is something a store may not give us since this is very proprietary. So we have to consider visiting the store several times and count people within a 2 or 3 hour period. It is called field research, it may not be fun but it sure returns great benefits of increased knowledge of our customer.

Focus on discount related claims

It has to be a compelling price point. Not the lowest but compelling and relevant to the consumer. If we were our consumer, what would incentivize us as a price point... just we have to be honest with ourselves in this question.

Promotional mechanism claims

Partnering with another brand - buy something and get something free is something that proved to work. For instance, a promotion like buy 2 bags of chocolates and get a container of hummus free can be very successful. So whatever our product, it is useful to look for brands that have synergy to ours and contact them to see if we can partner on co-promote.

Price reduction method and promotional lift

We don't really need a big discount for a product in order to increase our sales volume. Sometimes just a mere \$.20 cents price reduction does it because the tag attracts attention. What the entire buyer needs to see and what we need to clearly write is "Promotional Lift". This phrase is magical and proved to substantially increase sales volume. Promotional lift means that if we normally sell 10 units a week and we sold 20 units on promotion, we have a promotional lift of 10 units and a lift percentage of 100%.

2.4. The influence of drug promotion strategy, and drug promotional material gifts on drug prescription

Drug prescribing behavior of drug prescribers is believed to be influenced by drug promotion strategy used and drug promotional material gifts offered to drug prescribers. Details of drug promotion; drug promotional materials and their influence; and drug prescription and abuse are briefly discussed below under various sub-titles. The prevailing situation of drug promotion and promotional gifts in Ethiopia are also summarized.

2.4.1. Drug promotion and promotional materials

Doctors are the main targets for the promotional activities of drug companies in developing countries. With the power to prescribe and a high social status in their society, their opinion of a drug often determines its sales success. It is therefore not surprising that the majority of marketing spent by industry leaders goes towards direct-to-doctor (DTD) promotion. As stated by (EFMHCACA, 2013), health professionals are targeted by companies mainly via medical representatives and advertisements placed in medical journals or brochures that are sent directly to them. The cost implication of promotional works can be of particular concern to developing countries where health budgets are smaller and resources have to stretch much further. In developing countries, drug companies need to regulate their promotion activities effectively, while ensuring high standards of consumer protection.

2.4.2. Promotional materials and their influence

As indicated in EFMHCACA (2013), while making a choice in drug promotional material gifts for drug prescribers, promoters need to take into account, among others, the following important points:

- The influence of materials in drug prescription and introductions of drug promotion,
- Definitions of promotional materials and particularly materials used in drug promotions
- Promotional tools and gifts used for drug promotion
- Definition of drug prescriptions and definition of prescribers

2.4.3. Drug prescription and abuse

Commonly abused drugs:

A prescription drug is a pharmaceutical drug that legally requires a medical prescription to be dispensed. However, Over-The-Counter (OTC) drugs can be obtained without a prescription. Some medications have psychoactive (mind-altering) properties, thus, are sometimes abused by being taken by patients for reasons or amounts not prescribed by physicians for an intended use, or taken by someone other than the person for whom they are prescribed.

Prescription and OTC drugs are the most commonly abused substances only preceded by marijuana and alcohol. For instance, as indicated by (Jeremy, 2011), the two most commonly abused prescription drug classes are opioids and pain relievers. Examples of opioids include Vicodin/Oxycontin, and stimulants for treating Attention Deficit Hyperactivity Disorder (ADHD) such as Adderall, Concerta/Ritalin. While, central nervous system (CNS) depressants such as Valium are reported instances of pain relievers particularly administered to relieve from anxiety. The most commonly abused OTC drugs, on the other hand, are cough and cold remedies containing dextromethorphan. People often think that prescription and OTC drugs are safer than illicit drugs, but that's only true when they are taken exactly as prescribed and for the purpose intended. When abused, prescription and OTC drugs can be addictive and put abusers at risk for other adverse health effects, including overdose especially when taken along with other drugs or alcohol (Mangin, 2014).

Various ways of prescription drug abuse:

As stated by (Jeremy, 2011), prescription drugs may be abused in one or more of the following ways:

Taking a medication that has been prescribed for somebody else: Unaware of the dangers of sharing medications; people often unknowingly contribute to this form of abuse by sharing their unused pain relievers with their family members or other people.

Taking drugs in a higher quantity or in another manner than prescribed: Most prescription drugs are dispensed to be taken orally in the form of tablets. However, abusers sometimes crush the tablets and either snorts the powder or dissolves it in a liquid and injects the solution into their body. Such practice proved to hasten the direct entry of the drug into the bloodstream thus amplifying its effect on the brain as the drug by-passes the normal rout.

Taking drugs for another purpose than prescribed: All the aforementioned drug types can produce pleasurable effects at sufficient quantities, so taking them for the purpose of getting high is one of the main reasons people abuse them. ADHD drugs like Adderall are also often abused by students seeking to improve their academic performance. However, although they may boost alertness, there is little evidence

they improve cognitive functioning for those without a medical condition (Hutchens S. 1997) Ways of prescription drug abuse are also illustrated in Figure 1.

Figure 1 an illustration of spectrum of prescription drug abuse



Effects of prescription and OTC drugs on the brain

Taken as intended, prescription and OTC drugs safely treat specific mental or physical symptoms. However, when taken in different quantities or when such symptoms aren't present, they may affect the brain in ways very similar to illicit drugs (UNODC, 2009). For example, stimulants such as Ritalin achieve their effects by acting on the same neurotransmitter systems as cocaine. Opioid pain relievers such as OxyContin attach to the same cell receptors targeted by illegal opioids like heroin. Prescription depressants produce sedating or calming effects in the same manner as the club drugs Gamma Hydroxybutyrate (GHB) and rohypnol. When taken in very high doses, dextromethorphan acts on the same cell receptors as Phencyclidine (PCP) or ketamine, producing similar out-of-body experiences.

When abused, all of these classes of drugs directly or indirectly cause a pleasurable increase in the amount of dopamine in the brain's reward pathway. Repeatedly seeking to experience that feeling can lead to addiction.

Other Health Effects of Prescription and OTC Drugs

Opioids can produce drowsiness, cause constipation, and depending on the amount taken depress breathing. The latter effect makes opioids particularly dangerous, especially when they are snorted or injected or combined with other drugs or alcohol.

While the relationship between opioid overdose and depressed respiration (slowed breathing) has been confirmed, researchers are also studying the long-term effects on brain function. Depressed respiration can affect the amount of oxygen that reaches the brain, a condition called hypoxia. Hypoxia can have short- and long-term psychological and neurological effects, including coma and permanent brain damage.

Researchers are also investigating the long-term effects of opioid addiction on the brain. Studies have shown some deterioration of the brain's white matter due to heroin use, which may affect decision-making abilities, the ability to regulate behavior, and responses to stressful situations.

Stimulants can have strong effects on the cardiovascular system. Taking high doses of a stimulant can dangerously raise body temperature and cause irregular heartbeat or even heart failure or seizures. Also, taking some stimulants in high doses or repeatedly can lead to hostility or feelings of paranoia.

CNS depressants slow down brain activity and can cause sleepiness and loss of coordination. Continued use can lead to physical dependence and withdrawal symptoms if discontinuing use.

Dextromethorphan can cause impaired motor function, numbness, nausea or vomiting, and increased heart rate and blood pressure. On rare occasions, hypoxic brain damage caused by severe respiratory depression and a lack of oxygen to the brain can occur due to the combination of dextromethorphan with decongestants often found in the medication.

All of these drugs have the potential for addiction, and this risk is amplified when they are abused. Moreover, as with other drugs, abuse of prescription and OTC drugs can alter a person's judgment and decision making, leading to dangerous behaviors such as unsafe sex and drugged driving (Jeremy, 2011).

2.4.4. Current status of drug promotion and promotional gifts in Ethiopia

Common drug promotional gifts offered to drug prescribers by promoters

Among the promotional tactics employed by pharmaceutical companies is the practice of giving gifts to doctors. In developing countries such as Ethiopia these range from small items such as pens and notebooks to expensive holiday travel gifts, televisions, air conditioners and even jewelry. Domestic companies, in countries like India, Venezuela and Indonesia, are also engaged in similar practices. Pharmaceutical companies and drug promoters are sometimes considered to be taking advantage of poor economic conditions and lax regulations to influence the prescribing patterns of doctors in developing countries. Based on their cost, three categories of drug promotional material gifts can be identified that are commonly offered to drug prescribers in Ethiopia (EFMHCACA, 2013). These are: 1) low cost such as pens, writing pads, diaries and calendars (Figure 2); 2) medium cost such as stethoscope, books and briefcases; and 3) high cost such as air conditioners, and laptop and desktop computers. Figure 3 depicts an example of medium cost drug promotional material gifts.

Figure 2 Samples of low cost drug promotional material gifts offered to drug prescribers



Figure 3 A medium cost drug promotional material sample gift to the prescriber



Drug promotion and regulation:

As stipulated in the guideline of EFMHCAC (2013), in Ethiopia, drug promotion is regulated by EFMHACA and various media are entitled to promote specific pharmaceutical products. However, the same product can also be promoted through different media. Products that are allowed to be promoted via electronic and Print Media, TV, Radio, and Newspapers include: oral contraceptives; Oral Rehydration Salt (ORS); condoms; vitamins; food additives; analgesics; anthelmintic; medical

equipment; medical supplies including self-test for pregnancy and hypertension but not self-test for HIV; medicated & non medicated cosmetics; sanitary and beautifying agents such as tooth paste, diapers, modes; industrial & household insecticides, pesticides; and disinfectants. Products allowed to be promoted by the Billboards, on the other hand, include: condoms; oral contraceptives (one month); sanitary and beautifying agents such as tooth paste, diapers, Modes; vitamins; cosmetics; and sanitary and beautifying agents such as tooth paste, diapers, modes.

The information contained in a promoted drug shall be strictly evaluated by the concerned authority and the information content of promotion in media for Analgesics, Anthelmintic shall include their specific sources and shall also state that the advice of health professional is required. The information content of promotion in media for Cosmetics, on the other hand, shall include the necessary precaution to be taken during application. For industrial & household insecticide and pesticides the information that shall be contained should include: foods and liquids are covered before spraying; the person should cover his mouth and nose during spray, and they are not to be sprayed on fire. Other guideline information include that all medicines shall be kept away from the reach of children at all times; insecticide sprayed rooms should immediately be closed for 30 - 40 minutes; skin contact with the insecticide and pesticide should be avoided; all other drugs except the aforementioned ones shall not be advertised via radio, television, press as well as films; and on or in the various means of transportation such as aircrafts, ships, boats and vehicles.

2.5. Empirical Review

Ilorin is the capital city of Kwara State in Western Nigeria. As of 2007, it had a population of 847,582, making it the 13th largest city in Nigeria by population. In Ilorin, this descriptive cross-sectional survey was conducted at University of Ilorin Teaching Hospital to examine the influence of drug promotion by drug companies on the prescription habits of doctors in the hospital. Self-administered questionnaires were used to collect information from 137 doctors selected across all the clinical and laboratory departments using proportionate sampling. Majority (89.0%) of the doctors had attended drug promotion forum and were exposed to 64 different branded drugs within 6 months to this study. Fifty percent of the doctors had prescribed promoted drugs for the first time within 6 months to this study and over two-thirds agreed that drug promotion materials served as incentives to prescribe promoted drugs in

preference to their alternatives. More than two-thirds of the doctors did not prescribe in generic names, thus making them susceptible to prescribing promoted branded drugs. Drug promotion by drug companies influence prescription habits of doctors in this teaching hospital This finding though beneficial to the drug companies may not necessarily be cost-effective and to the benefit of the patients. Further studies and attention on this issue in developing countries is necessary with the ultimate aim of protecting the interest of patients in the face of rising cost of pharmaceuticals (Akande and Aderibigbe, 2007).

Relevant influence of promotional tools by pharmaceutical industry on prescribing behaviors of doctors: A cross-sectional survey in Pakistan. The study has shown that physicians perceive that scientific promotional tools are more influencing in changing prescribing behaviors in comparison with other promotional tools, which is similar to the medical representative perception. But as far as other promotional tools are concerned, there exist a significant difference in perception of both medical representatives and doctors. It has also been found that common promotional gifts are more influential factor for physicians rather than consultants. On the other side, scientific promotional tools are more influential for consultants than physicians. No significant difference between government doctors and private doctors, and also no significant difference between medical representatives and area sales managers. It provides guideline for pharmaceutical companies, that companies should plan more of scientific promotional tools for consultants and more common promotional tools for physicians. Based on many influential factors perceptions of medical representatives are not as per actual reality, they perceive that doctors are more interested in sponsorships and personal touch promotional tools. The study helps product managers and CEOs while allocating promotional budgets and developing promotional mix strategy, to gain maximum return out of investment.

CHAPTER III. RESEARCH DESIGN AND METHODS

The focus of this study was sample Governmental and Private Health Institutions and Health Professionals operating in Addis Ababa. Details of the research design/sampling layout used for this study; sources of the required data and data collection tools employed; and the data analysis methods used are briefly described below under separate subheadings.

3.1. Research Design

For this study, descriptive and exploratory research designs were employed and for the data collection, quantitative and qualitative cross-sectional survey tools were used. With the intention of collecting comprehensive information, the survey has taken into account representatives of various sample groups, which include sector, institution, professional title, professional group, sex and age within target health institutions and professionals in Addis Ababa.

3.2. Data Source

As stated above and with the help of a pre-tested semi-structured questionnaire, the required information were sourced from health professionals mainly nurses holding first degree, physicians and health officers working in Governmental and Private Health Institutions in Addis Ababa.

3.3. Population and Sample Size

According to the Guidelines for the Regulation of Promotion and Advertisement of Drugs in Ethiopia, in 2007, the total number of prescribers in Addis Ababa was estimated at 32,300 working in Government Hospitals; while those working in Private Health Institutions were estimate at 14, 500. There were also a total of 2,300 licensed drug promoters in the city (EFMHACA, 2008).

In this study, a total of 200, of which 100 drug promoters and 100 drug prescribers, sample respondents participated in responding to survey questions. As indicated in the Central Statistical Agency (CSA, 2015), the sample size considered for this study represents the sample population. Details of the sampling layout are summarized in Table 1.

Table 1 Sampling layout of respondents by category

Category	Number	Proportion (%)	Category	Number	Proportion (%)
Sector			Profession group		
Government	100	50	Prescribers	153	76.5
Private	100	50	Promoters	47	23.5
Total	200	100	Total	200	100
Institution			Sex		
Hospitals	14	7	Female	61	30.5
Health Centers	54	27	Male	139	69.5
Others	132	66	Total	200	100
Total	200	100	Age		
Professional title			<20 years	9	4.5
Physicians	49	24.5	21 – 30 years	59	29.5
Health Officers	34	17	31 – 40 years	46	23
Nurses/1 st Degree	103	51.5	41 – 50 years	72	36
Others	14	7	>50 years	14	7
Total	200	100	Total	200	100

3.4. Sampling Technique

With the intention of collecting representative and comprehensive information, purposive sampling technique was used within the sample population in order to ensure representation of the various health institutions, professions as well as age and sex groups of professionals. Within the aforementioned groups, however, convenient sampling technique was employed till the sample size within each group was achieved.

3.5. Data Collection Tool

A pre-tested structured questionnaire (Annex) was used to collect the required information that helped to understand the effect of drug promotional material gifts on drug prescription. A total of six well experienced enumerators were involved in the data collection. The enumerators were first briefed on the contents of the questionnaire. In addition to supervising and technically backing up the enumerators, the principal investigator was also involved in data collection. The data generated through the survey are also supplemented by relevant and available literature review.

3.6 Validity and reliability

The reliability of the collected data was validated through presenting and discussing the summary of results with a representative sample (sub-set) of the total sample respondents.

3.7 Data Analysis Methods

The various categories, for which data were collected, were numerically coded. The coded data for the different categories were then expressed in frequencies and percentages using Statistical Package for Social Science (SPSS) software (SPSS version 13).

3.8. Ethical Consideration

During the data collection, all respondents are told that their credentials will not be disclosed by any means to any third party and the information gathered will be used exclusively for this particular research purpose.

CHAPTER IV: RESULTS AND DISCUSSION

In this chapter survey results on prescribers and promoters level of preference on use of either brand or generic drug prescription as well as their attitude towards drug promotion and promotional material gifts (from promoters) are summarized under various sub-titles.

4.1 Respondent Demographic Characteristics

Of the total 200 respondent human health professionals (drug prescribers and promoters), 61 (30.5%) were women. The majority (36%) of all respondent human health professionals were in 41 to 50 years age group followed by age group 21 to 30 years (29.5%) and 31 to 40 years (23%). Those respondents that were younger than 20 years of age, during the time of the survey, were the fewest accounting to only 4.5%; while those sample respondent drug prescribers and promoters reported to be older than 50 years accounted for 7% of the total number of interviewees.

4.2 Preference of drug prescribers and promoters on the use of drug brand versus generic names

Generally, the use of drug generic names was the most preferred prescription ways by most of both drug prescribers and promoters compared with the use of drug brand names (Figures 4 and 5). As presented in Figure 4-A, the majority (72%) of the respondent prescribers reported to either very strongly or strongly prefer prescribing using generic names; while only 9% of the interviewed prescribers reported to not prefer at all generic name prescription. As it was the case with prescribers, drug generic name was very strongly preferred by most (59%) of the respondent sample promoters with 22% having responded to prefer strongly and only 3% of them reportedly do not prefer generic name at all (Figure 4-B). As it can be observed from Figure 5, the majority of sample respondents, 74% of drug prescribers and 69% of drug promoters, responded either to prefer weakly or not to prefer at all the use of drug brand names. Two of the reasons mentioned most for generic name preference being habit of use and better link of generic name to the corresponding drug.

Figure 4 Prescribers' and promoters' level of preference to the use of generic name

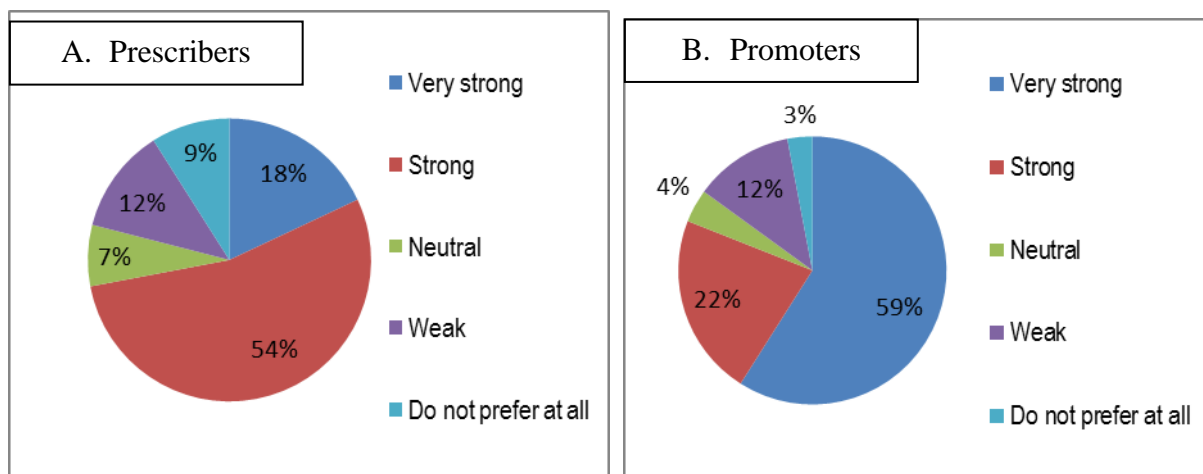
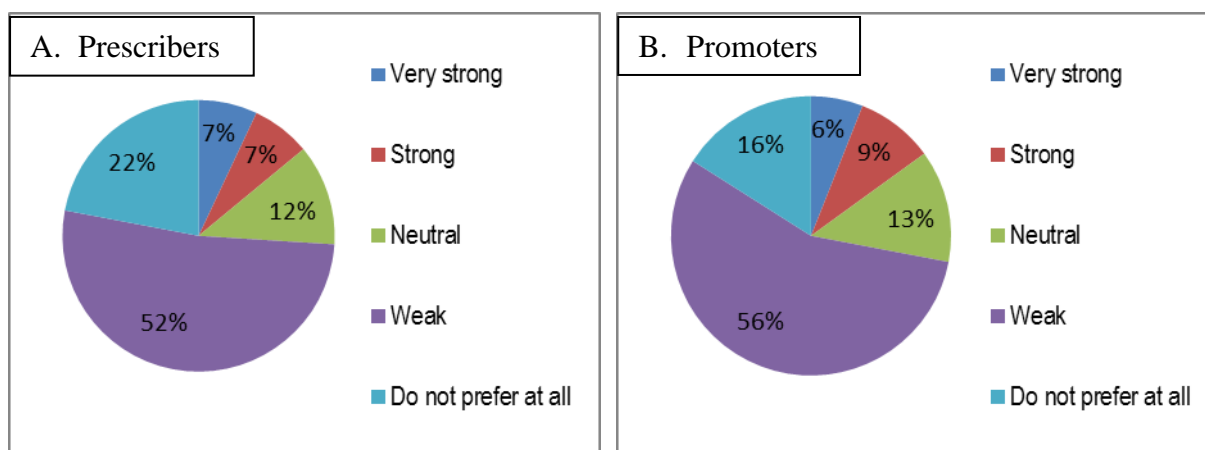


Figure 5 Prescribers' and promoters' level of preference to Brand Name



4.3 Respondent drug prescribers' attitude towards drug promotion

The majority of the sample respondent prescribers reportedly attended drug promotional forum and were exposed to various branded drugs within the period of their professional career. Eighty-nine of the hundred respondent sample drug prescribers reported that they were contacted by drug promoters regularly with all the remaining respondent drug prescribers also responded to have been contacted by drug promoters less frequently though. Only three of the hundred sample drug prescribers reportedly didn't receive drug promotional material gifts. Sixty seven of the 97 respondent drug prescribers, who reported to have received drug promotional material gifts, revealed that they receive the gifts regularly with 69 of them having reported that the promotional material gifts contain full and detailed information about

the drug (Table 2). They further expressed that the information provided with the gifts offered to them not only adds value to their pharmaceutical knowledge but also help them get an update on new drug development.

Table 2 Prescribers' attitude towards drug promotion and drug promotional material gifts by promoters

Variable	Respondent prescribers' level of response, frequency					Total
	Regularly	Often	Sometimes	Seldom	Not at all	
Contacted by promoters	89	8	1	2	-	100
Promotional materials received	67	21	7	2	3	100
Full drug information provided in promotional material gifts	69	19	7	2	3	100

4.4 Respondent drug promoters' attitude towards drug promotion

According to the assessment made with sample respondent drug promoters, 87 and 84 of the 100 respondents respectively reported to have regularly contacted and offered drug promotional material gifts to drug prescribers. Twelve and 13 of them, on the other hand, respectively reported to have contacted and offered drug promotional material gifts to drug prescribers less frequently though. However, only one promoter responded not to have contacted prescribers and three of them not to have offered gifts. Most of the respondent drug promoters 69 and 74 of the total 100, also mentioned that promotional material gifts offered to prescribers regularly contain full drug information and are related with the drug, respectively (Table 3).

Table 3 Promoters' attitude towards their drug promotion strategy and drug promotional material gifts

Variable	Respondent promoters' level of response, frequency					Total
	Regularly	Often	Sometimes	Seldom	Not at all	
Contacted prescribers	87	7	2	3	1	100
Drug promotional materials gifted	84	9	3	1	3	100
Full drug information provided in promotional material gifts	69	19	7	2	3	100
Relationship between drug and drug promotional material gifts	74	12	7	4	3	100

4.5 Attitude of drug prescribers and promoters towards drug promotion and promotional material gifts

Although, the majority of both respondent drug promoters and prescribers reported that promotion and promotional material gifts are needed for drugs, they were of the opinion that the monetary value of the gifts should be small. Over 90% of both promoters and prescribers were also convinced that the information contained in drug promotion adds value to the pharmaceutical knowledge of the prescribers (Table 4).

In the current study, it was understood that drug promotion coupled with promotional material gifts by drug companies/promoters influence the prescription behavior of drug prescribers. Though such practice is proved to be beneficial to drug promoting companies, it may not necessarily be cost-effective and to the benefit of the patients. As it is stated earlier, this is because, the majority of respondents were contacted by promoters and received materials as a gift that, as stated by most of the respondent promoters and prescribers, seemed to have influenced the prescription behavior of prescribers (Table 4). This should call for further targeted study and attention on the issue in Ethiopia, so that patients will not be subjected to high medication costs in face of the rising tendency of price of pharmaceutical products.

Table 4 Prescribers and promoters attitude towards drug promotion and drug promotional material gifts

Variable	Sample respondent prescribers' and promoters' level of response, frequency										
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Total
	Presc	Prom	Presc	Prom	Presc	Prom	Presc	Prom	Presc	Prom	
No promotion for drugs	7	4	7	12	9	7	12	9	65	68	200
No material gift for drug promotion	27	29	58	49	9	11	6	7	0	3	200
Promotion needed for drugs	65	65	23	23	6	6	3	3	3	3	200
No or very small monetary value for drug promotional material gift	73	73	17	17	7	7	3	3	0	0	200
Drug promotional material gifts influence drug prescription	61	61	29	29	8	8	2	2	0	0	200
Drug promotional material gifts do not influence drug prescription	7	76	12	9	9	6	64	7	8	2	200
Drug promotion adds value to prescribers' knowledge	88	86	7	5	4	7	1	1	0	1	200

Presc = Prescribers; Prom = Promoters

4.6 Level of drug prescribers' and promoters' satisfaction of drug promotion

Considering the influence of all drug promotion related parameters taken into account on drug prescription behavior of the prescribers that include drug information contained and promotional material gifts, it can be observed that most of the respondent drug promoters and prescribers reported to be either very strongly or strongly satisfied with their overall experience related to drug promotion with number being slightly high among promoters though (Figures 6 and 7).

Figure 6 Sample respondent prescribers' and promoters' level of satisfaction on their overall experience in drug promotion

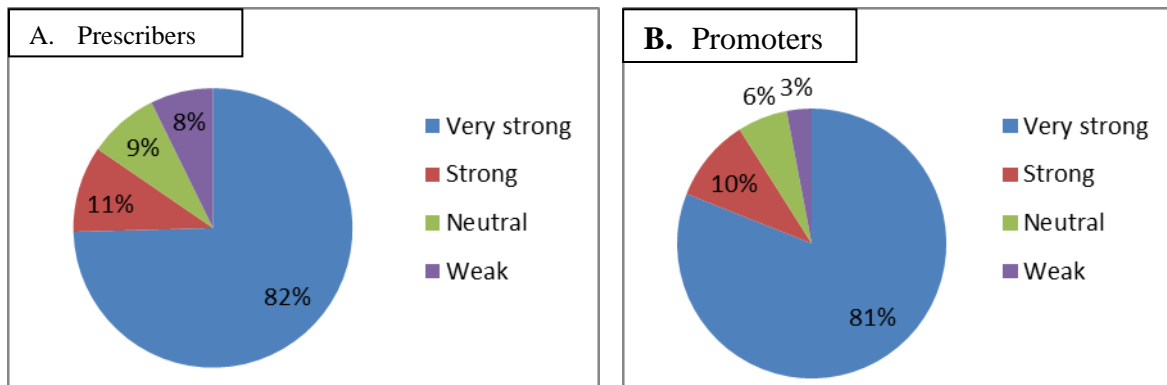
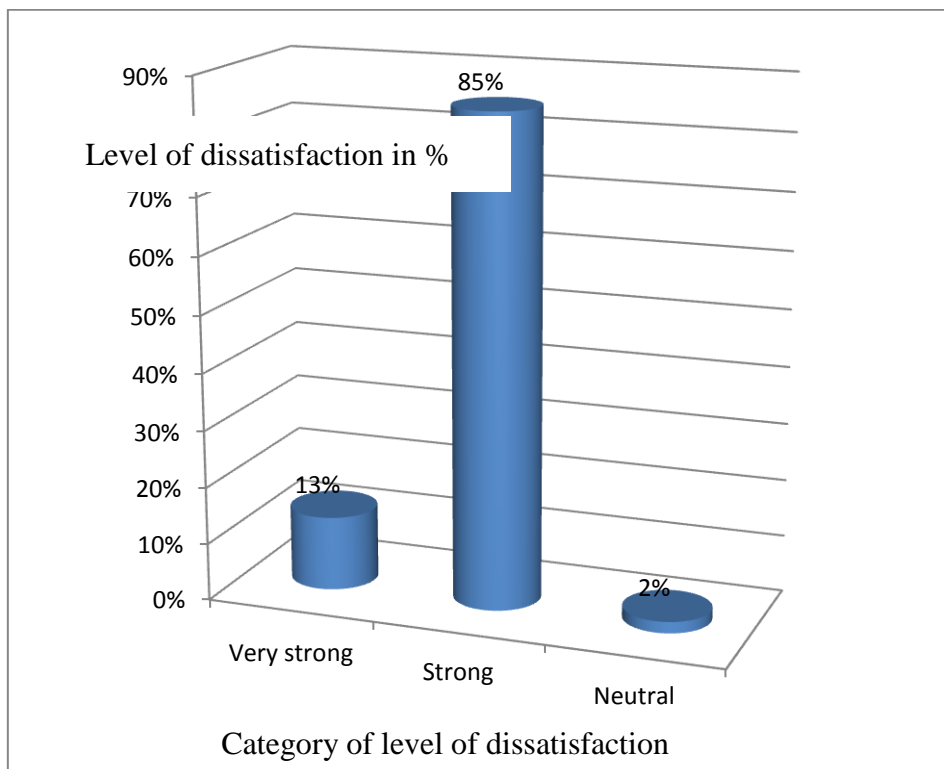


Figure 7 Sample respondent prescribers' and promoters' level of dissatisfaction on their overall experience in drug promotion



CHAPTER V: SUMMARY, CONCLUSION AND RECOMMENDATION

In this chapter summary of the key findings of the study, conclusion drawn and recommendation made for future consideration are briefly presented.

5.1. Summary of Key Findings

Though the pharmaceutical industry provides a valuable and legitimate contribution to societies, it is a business and its profitability is heavily dependent on marketing. Business promotion as part of a marketing strategy is an important component of a profitable business venture. Drug promotion refers to any visual and/or sound representation used for the purpose of promoting directly or indirectly the prescription, sale or distribution of any drug. Prescription drug, on the other hand, refers to a pharmaceutical drug that legally requires a medical prescription to be dispensed. Business owners practice promotion of their products not only to motivate consumers to make a trial but also to convert them into regular purchasers of their products. Generally, the use of drug generic names was the most preferred prescription ways by most of both drug prescribers and promoters compared with the use of drug brand names.

Most of the respondents of both sample groups were of the opinion that drug information provided along with drug promotional gifts to be full and comprehensive, with the majority of the sample promoters also reporting the relevance of gifts with the drug. As perceived during the current study, drug promotion coupled with promotional material gifts by drug companies/promoters influence the prescription behavior of drug prescribers, which is generally more marked in private health institutions compared with that of the government. This should call for further targeted study and attention on the issue in Ethiopia, so that patients will not be subjected to high medication costs in face of the rising tendency of price of pharmaceutical products.

5.2. Conclusion

In Ethiopia, though a legal framework is in place, drug promotion is practiced haphazardly and commonly accompanied by offering drug promotional material gifts to drug prescribers. These gifts range from small items such as pens and notebooks

to expensive holiday travel gifts, televisions, air conditioners and even jewelry. However, as observed during the current study, drug promotion particularly when accompanied with promotional material gifts offered to drug prescribers reportedly influence the prescription behavior of drug prescribers to the advantage of pharmaceutical companies whose drug promotion is accompanied by offering promotional material gifts to prescribers.

5.3. Recommendation

From the results of the present study, the following key recommendations can be drawn:

- A targeted study at a larger scale on the influence of offering drug promotional material gifts on the prescription behavior of drug prescribers needs to be conducted to provide more comprehensive evidence based information. Such information should help concerned policy makers in reviewing existing drug promotion related regulations. By so doing and more importantly implementing carefully studied and reviewed drug promotion related regulations, drug consumers/patients would be protected from being exposed to high medication costs related to the rising tendency of pharmaceutical products' prices.
- The reason why private health professionals are more influenced in their prescription behavior by drug promotion and promotional gifts compared with those working in the public sector need further investigation.
- Drug regulators need also to consider the balance between encouraging promotion as a valuable tool to disseminate drug information and policing it to ensure its reliability and honesty.

REFERENCES

1. Akande TM, Aderibigbe S.A. (2007). Influence of drug promotion on prescribing habits of doctors in a teaching hospital. *Afr J Med Med Sci.* 2007 Sep;36(3):207-11.
2. AU. (2007). Revised AU Plan of Action on Drug Control and Crime Prevention (2007-2012). 3rd Session of the AU Conference of Ministers for Drug Control and Crime Prevention. African Union (AU), Addis Ababa, Ethiopia.
<https://www.unodc.org/documents/about-unodc/AU%20plan%20of%20action.pdf>
3. Consumers International. (2007). How drug companies influence health in the developing world. *Drugs, Doctors and Dinners.* Consumer International, 24 Highbury Crescent London N5 1RX UK. Available at
<http://www.consumersinternational.org>
4. CSA. (2015). Statistical Abstract. Federal Democratic Republic of Ethiopia Central Statistical Agency (CSA), Addis Ababa, Ethiopia.
5. EFMHCACA. (2008). Guidelines for the regulation of promotion and advertisement of drugs. Second Edition. Ethiopian Food, Medicines, Health Care, Administrations and Control Authority (EFMHCACA), Addis Ababa Ethiopia September 2008.
6. EFMHCACA. (2013). Guidelines for health institution promotion. First Edition. Ethiopian Food, Medicines, Health Care, Administrations and Control Authority (EFMHCACA), Addis Ababa Ethiopia.
7. EFMHCACA. (2013). Pharmaceuticals Promotion Directives. First Edition. Ethiopian Food, Medicines, Health Care, Administrations and Control Authority (EFMHCACA.), Addis Ababa, Ethiopia.
8. Ehlers A. (2015). Life Sciences. The German Regulatory Legal Framework. European Commission DG Health and food Medicinal products for human Use legal framework. Available at
<http://whoswholegal.com/news/features/article/32127/german-regulatory-legal-framework/>
9. Gray A. Hoffman J. and Mansfield R. (2014). Pharmaceutical sales representatives. Understanding and Responding to Pharmaceutical Promotion. First edition. A Practical Guide. Working draft for pilot field testing.
10. Hutchens S. (1997). National Park Service requirements of a US West Technology. Creighton University. USA.
11. Jeremy A.G. (2011). Partial bibliography on pharmaceutical promotion and prescribing habits. John G. Connolly Division of Pharmacoepidemiology and Pharmacoeconomics. Brigham & Women's Hospital Harvard Medical School. Boston, USA.
12. Kokemuller N. (2007). Professional experience in marketing, retail and small business. Iowa State University.
13. Mangin D. (2014). Promotion, professional practice and patient trust. Understanding and Responding to Pharmaceutical Promotion. First edition. A Practical Guide. Working draft for pilot field testing.

14. Mintzes B. (2015). Promotion of Medicines and Patient Health. In B. Mintzes, D. Mangin, L. Hayes (Eds.), *Understanding and Responding to Pharmaceutical Promotion: A Practical Guide*, (pp. 9-24). Amsterdam: World Health Organization.
15. Norris P, Herxheimer A, Lexchin J, and Mansfield P. (2005). What we know, what we have yet to learn. Reviews of materials in the WHO/HAI database on drug promotion. Drug promotion. World Health Organization and Health Action International.
16. Ratanawijitrasin S. and Eshetu W. (2002). *Effective drug regulation: A multi-country study*. World Health Organization, Geneva, Switzerland.
17. Sandra C.J. (2008). *Corporate social responsibility, condition branding and ethics in marketing*. University of Wollongong, Danika Hall.
18. Sultana S. and Khosru K.H. (2011). *Practice of using gifts as promotional materials for marketing of pharmaceutical products in Bangladesh: A survey conducted on general physicians and representatives from pharmaceutical companies*. Department of Pharmacy, BRAC University, Dhaka-1212, Gazipur, Bangladesh.
19. UNODC. (2009). *Promoting the Rule of Law and Human Security in Eastern Africa Regional Programme 2009-12* United Nations Office on Drugs and Crime (UNODC). Available at https://www.unodc.org/documents/easternafrika/regional-ministerial-meeting/Eastern_Africa_Regional_Programme_Final_Draft.pdf
20. Ziganshina L. and Lexchin J. (2014). *Regulation of pharmaceutical promotion: Why does regulation matter? Understanding and Responding to Pharmaceutical Promotion*. First edition. A Practical Guide. Working draft for pilot field testing.

Annex

Indira Gandhi National Open University (IGNOU) Master of business Administration (MBA) Program

Questionnaire used for Prescribers

Dear respondent,

Good day! This prescriber's opinion on promotional materials is a survey which is conducted for the partial fulfillment of MBA and aimed to know the influence of promotional materials on drug prescriptions. In this brief survey, your answers will be helpful in enhancing our services and meeting the prescription needs. Your response will only be used for survey purposes. In case you have any questions regarding the survey, please call at +251911514595.

Thank you very much again for your time and suggestions

Demographic Data

Notes: This section is optional. The questions asking for demographic data should be relevant to the survey goal and must point to the characteristics of the target population.

Name (optional): _____

Age: _____

Gender: _____

Qualification: _____

Working at Government _____

Private _____

Years of experience as a prescriber/promoter

1-2

3-5

6-10

More than 10

Questions

Please indicate your level of agreement or disagreement with each of these statements regarding the influence of promotional materials on drug prescriptions. Place "x" mark in the box of your answer

1= Strongly agree (SA); 2= Agree (A); 3=Neutral (N) ; 4=Disagree (DA); 5=Strongly Disagree(SD)

Q.1 Prescription trends of prescriber based on the generic and brand preference

	1	2	3	4	5
Prescription has to be written in the drugs generic name					
Prescription has to be written in the drugs brand name					

Q.2 How do you rate the way promoters act on drug promotion and the materials they offer you?

	1	2	3	4	5
Promoters contacted you					
Promotional material received					
Promotional materials you're received have full information's about the drug?					
Promotional materials received have direct relation to the drug?					

Q3. How would you rate your overall experience in drug promotion?

	1	2	3	4	5
satisfactory					
Unsatisfactory					

Q4. What could we do to make promotion based on the products information? The promotional material and their influence on prescriber

	1	2	3	4	5
Promotion do not require on drugs					
Promotion has to be done without any gift					
Promotions are required on drugs					
Promotional gifts has to be value less or having very small value in terms of money					
promotional materials received from promoter are influential on prescription of drug to patients					
Promotional materials received from promoter do not influence on prescription of drug to the patients					
Drug promotion do have significant importance to the knowledge of the prescriber					
Before and after promotion of specific drug there is a significant change in prescribing of that drug					

Indira Gandhi National Open University (IGNOU)
Master of business Administration (MBA) Program

Questionnaire used for Drug Promoters

Dear respondent,

Good day! This Promoter's opinion on promotional materials is a survey which is conducted for the partial fulfillment of MBA and aimed to know the influence of promotional materials on drug prescriptions. In this brief survey, your answers will be helpful in enhancing our services and meeting the prescription needs. Your response will only be used for survey purposes. In case you have any questions regarding the survey, please call at +251911514595. Thank you very much again for your time and suggestions.

Demographic Data

Notes: This section is optional. The questions asking for demographic data should be relevant to the survey goal and must point to the characteristics of the target population.

Name (optional): _____

Age: _____

Gender: _____

Qualification: _____

Working at Government _____

Private _____

Years of experience as a prescriber/promoter

- 1-2
- 3-5
- 6-10
- More than 10

Questions

Please indicate your level of agreement or disagreement with each of these statements regarding the influence of promotional materials on drug prescriptions. Place "x" mark in the box of your answer.

1= Strongly agree (SA); 2= Agree (A); 3=Neutral (N) ; 4=Disagree (DA); 5=Strongly Disagree(SD)

Q.1 Prescription trend based on the generic and brand preference

	1	2	3	4	5
Prescription has to be written in the drugs generic name					
Prescription has to be written in the drugs brand name?					

Q.2 How do you rate the way you promote and the materials you offer to prescribers?

	1	2	3	4	5
You contact a prescriber frequently?					
Promotional material given					
Promotional materials you're given have full information's about the drug?					
Promotional materials given have direct relation to the drug?					

Q3. How would you rate your overall experience in drug promotion?

	1	2	3	4	5
satisfactory					
Unsatisfactory					

Q4. What could we do to make promotion based on the products information? The promotional material and their influence on prescriber

	1	2	3	4	5
Promotion do not require on drugs					
Promotion has to be done without any gift					
Promotions are required on drugs					
Promotional gifts has to be value less or having very small value in terms of money					
promotional materials and gifts given by promoters are influential on prescription of drug to patients					
Promotional materials and gifts given by promoters do not influence on prescription of drug to the patients					
Drug promotion do have significant importance to the knowledge of the prescriber					
Before and after promotion of specific drug there is a significant change in prescription flow of that drug					