

CHAPTER – I

INTRODUCTION

1.1 Background of the Study

Nepal is a land-locked country between giant country India and China and it lies on the southern lap of great Himalayan range. It is one of the least developed countries in the world and its more than 63% of the total working population depends on agriculture.

After 1956 Nepal started planned economic development, an effort was put to obtain rapid economic growth. Then the development of modern industries in the public sector started with planned economic development. In our country various manufacturing companies have been established and developed through government efforts and funding from NIDC under various five year development plans. At present tenth plan is running. Due to poor performance negative return, lack of efficiency, inefficient management, government has emphasized on privatization so that public enterprises could be competitive, efficient and profitable.

Industrialization is universally accepted as a strategy of economic development. It is the key factor in the process of achieving economic growth and prosperity which has long been recognized in economic literature. It offers prospects for expansion of employment and income and generates innovations and technological changes that bring rapid economic growth of the country.

Industrial sector is known as a backbone of the nation. Among various industries present in our country, pharmaceutical industry is one of the vital sectors. Health is wealth. People need medicinal drugs and all countries recognize them as a

means of safeguarding the health of their people. Recognizing the importance of drugs, every countries has prescribed its rules and regulations so that the consumers can get drugs which are effective and of good quality.

Pharma industry is one of the growing industries in Nepal. It is in the process of continuous advancement. The total pharma market in Nepal per annum is around ten thousand million, out of which around one third of the market is occupied by domestic pharma companies. Though the market is not so big, domestic investors are attracted to invest in this sector looking lucrative profit and high potential to grasp the market share of Indian companies. This industry is less affected by different external environmental factors as compared to other business because the health is always the prime concern for everybody.

Pharma market has been an important segment for a particular country now days, so Nepal can't also be apart from this segment of market. There are many brands of medicines available in the market. The medicine market has become measurable market segment in the Nepal at this moment. It is considered that Nepal is a very potential market for pharma industry.

The pharmaceutical industry is gradually taking height with the change of time and government policies. With the invasion of democracy in the1990, Liberalization concept, introduction of new policies started coming out, many entrepreneurs stepped towards manufacturing pharmaceutical products with the aim of taking care of public health. This emergence of pharma companies has broken import of drugs in the local markets freign countries.

Around forty Nepalese pharma companies are under operation out of the total forty three companies registered in department of drug administration (DDA). Apart from this, around two hundred thirty companies from India, Bangladesh and

third countries are also fighting in this small market. Indian companies have dominated the Nepali market due to their high technological advancement, capacity to manufacture super specialty medicine and trust they are able to gain from doctors since long ago. The Nepalese companies are also having enough opportunities to prosper if they can compete with the giant Indian companies and snatch their market share. But only few domestic companies are able to fight with the Indian companies and the rest are imitating and competing with domestic leader creating fierce internal rivalry.

Imported medicines are subject to five percent custom charge and it is free from value added tax. Domestic companies are free of such tax, which is facilitating them to offer their product in comparatively cheaper price. However, low production due to small market and inability to export their product is causing rise in cost of production. Despite the ability of the Nepalese entrepreneurs to invest to produce super specialty product, they are not able to do so due to dependence in this tiny market.

The only one state-owned pharma company named Royal Drugs Ltd., though having good reputation in market and variety of renowned products, is not doing well because of poor management. Few private companies are really doing well because of their high innovating capacity and competent human resource. They are gradually eating away the market share of Indian companies. The government has also adopted the policy of protecting domestic companies by imposing some non-tariff barrier so as to discourage the entry of unethical Indian companies to Nepal. To develop the Nepalese companies to the extent of International standard, department of drug administration has prescribed mandatory rule to get the WHO-GMP certificate (World Health Organization- Good Manufacturing Practice Certificate) by the end of year 2007. Till now, seven companies have already got this certificate.

Now the environment is conducive for Nepalese Pharma companies. If they properly scan the external environment, reinforce their strength and overcome weaknesses, they will be able to grab the market share to the extent of around fifty percent within next ten years. Pharmaceutical industry is going through one of its critical phases now. There are stiff competitions from the imported drugs industries but situation is helpless to the Nepalese pharmaceutical industries due to inconsiderate behavior of the government towards them. The imported drugs have floated the market this is because of the misinterpretation of concept of free economy; the government is continuing the registration of imported drugs even though they are not contributing to the Nepalese economy, they are surviving in the fact of , no taxes, no employment, no infrastructure development. If government can provide facilities to the production of injectable drugs more market share will be captured in the industries.

1.2 Pharmaceutical Companies and their History in Nepal

Nepal is rich in medicinal plants, so the Ayurvedic system of medication flourished here. However, the gate for modern medication was opened only after the establishment of British Residency in Kathmandu in 1916 AD where a small hospital was established for the residency staff. The hospital also provided service to local people. The no. of hospitals gradually increased after the establishment of Bir hospital in 1890 AD. The concept of producing modern medicine in Nepal developed only after His Majesty's Government drafted a master plan for the utilization of medicinal plants in 1955 AD and implement in 1961 AD. As per the plans Royal Drugs Research Laboratory (RDRL) was established in 1964 AD, which along with various research activities started manufacturing modern pharmaceutical dosage form in 1968 AD. The manufacturing unit of RDRL was converted into Royal Drugs Limited (RDL) in 1972 AD for commercial production of modern drug.

Effort was also made to develop pharmaceutical industries in private sector. Establishment of Nepal Pharmaceutical Work Pvt. Ltd, at Godavari, Lalitpur was unsuccessful. However, Chemi Drug Industries, first started production of modern Ayurvedic drugs and later engaged mainly in the production of allopathic drugs. Royal Drugs Ltd. was an inspiration for other interested persons to start drug industry, though lack of information and technical know-how has made the decade of 1970 as a decade of more failure and less success. Some of the factories started during the period and already closed. Five factories established during late seventies.

With the establishment of Department of Drug Administration (DDA) in 1979 AD in accordance with the drug act 1978, an environment was created for drug industry. Many industries were started in late eighties and early ninties. RDRL, the principal organization of HMG for scientific research testing and analysis of durgs, which was under the ministry of forest and soil conservation, was brought to under ministry of Health in 1993. This has a positive impact to drug industry and better quality control of marketed drug has become possible. The laboratory is functioning under DDA with a completely new setup to function as national drug control laboratory.

In the year when DDA was established, there were five pharmaceuticals companies in private sector. In 1972 AD, total production of drugs including that of RDL was worth Rs. 2 million whereas total consumption was estimated to be about Rs. 11.5 million.

1.2.1 Objectives of RDRL

His Late Majesty King Mahendra inaugurated (RDRL) in 1964. The activity of RDRL was directed towards achieving the following objectives:-

1. Research on the utilization of natural resources for the production of drugs and allied chemicals.

2. Development of technology for the production of drugs and their essential intermediate and transfer of technology to industries.
3. Testing, standardization and quality control of drugs and allied materials and
4. Providing technical guidance in the establishment of drug industries in Nepal.

In order to demonstrate the pharmaceutical techniques for the production of drugs and to encourage private parties for the establishment for pharmaceutical industries, the establishment of modern pharmaceutical production unit was initiated under RDRL. This unit with a few pilot scale plants for the production of various medicines in the form of tables, syrup and ointments came into existence in 1968. In 1972, this production unit was changed into RDRL, public sector industry.

WHO first published its guidelines on GMP in 1968 which was slightly revised in 1971 which is the current GMP for its drug industries. WHO guided GMP is minimum requirement for the importation of drug in Nepal. Similarly, this requirement is now also gradually implemented to all National pharmaceutical industries for the production of drug.

Nepalese pharmaceutical industries can be divided in three groups:-

- a. The pharmaceutical industries, which have all requirements, but needs inspection auditing and improvement for compliance.
- b. The pharmaceutical industries, which do not have all facilities, but can be installed or developed to meet with the requirements.
- c. The pharmaceutical industries, which cannot be upgraded to fulfill the requirement. These categories of pharmaceutical industries must be closed if the deadline for getting WHO -GMP certificates expires.

1.2.2 Brief Introduction of RDL

Royal Drugs Limited was established in 2029 (1972 A.D.) in the public sector as an undertaking of HMG of Nepal. The company had its beginning in plans which formulated a program for the production and marketing of some medicines by Royal Drugs Research Laboratory within the Department of Medicinal Plants, Ministry of Forest. Later a separate production unit under the same laboratory was created with the help of technical assistance of the British Government in the form of expertise and equipment. After a successful trial period of four years in the manufacture and marketing of pharmaceuticals, the production unit was converted into a company in accordance with company act.

Aims and Objectives

As fully owned enterprise of HMG/N, the aims and objective of the company are:

1. To produce and distribute safe and quality medicine.
2. To sale the medicine in a reasonable fair price to the general public
3. To make the country self-sufficient in essential drugs.
4. To produce the varieties of medicine according to different climate zone.
5. To replace old varieties by new varieties of medicine as per market demand.
6. To deliver medicine in time.
7. To help the other social industries by using their products in productions and packaging areas.

Types of Medicines

Royal Drugs Limited produces and markets 31 clinical groups of medicines that consists of 80 preparations in the form of tables, capsules, powders, liquids, ointments and inject able fluids.

Quality Control

Royal Drugs Limited produces high quality medicines. The company possesses its own quality control laboratory with all the necessary facilities required for testing product manufactured. Raw materials, packing material and every batch of products are tested according to pharmacopoeial standards before they are released for distribution. The quality control is monitored by highly skilled personnel's trained at home and abroad.

Research and Development

Royal Drugs Limited has its own product development laboratory where qualified pharmacist and specialists of other disciplines are engaged in the development of stable and effective dosage forms. The dosages formula and production processes for all the R.D.L. medicines that has so far been put into the market have been independently developed by the RDL. There is scientific and technological capability to bring out new formulation in order to meet urgent need of life saving drugs required during emergencies.

Popularity of RDL medicines

The medicines of the RDL are consistently gaining popularity as shown by the consistent increase in sales volume. Some of the medicines are so popular that they are acquired household names. Various factors have contributed to the growing popularity; the most important is, of course, the confidence that has been shown by the medical practitioners, chemists and druggists on RDL products. The underlying truth in the confidence is "RDL manufactures safe, efficacious and quality medicines under GMP conditions of international standards and markets them at reasonably fair prices".

Sales and Distribution

Medicines of RDL are marketed through 60 stockiest appointed by the company. These stockiest supply to retailers of their respective areas covering all the fourteen zones. RDL has its own sales depo with storage facilities at Nepalgunj. Besides wholesale supply, RDL supplies medicines directly to various hospitals, institutions and foreign agencies.

Helping Home Industries

In the sprit of self reliance, RDL is enthusiastic to encourage and assist home industries producing raw materials, packaging materials and spare parts needed regularly. It provides priority to home products, indigenous resources and services whenever required.

Financial Aspects

RDL has been in profit since its establishment except for FY. 2046/2047. It has risen up its assets to NRs 75 million and contributes a substantial amount to the government in the form of custom duties, import licenses, income tax etc. Hundreds of people all over Nepal have benefited from it directly in the form of distributors, retailers and as associates, apart from employing about 600 persons.

Future Plans

RDL aims to meet 80 percent of national demand of essential drugs by the year 2005. To achieve this goal, RDL has formulated expansion plan in the area of Jeevan Jal production, small volume injectables and other essential drugs. All these together with RDL's existing facilities will mean a substantial indigenous capability in the area of essential drugs production.

1.3 The Problems and Prospects of Nepalese Pharmaceutical Market

1.3.1 Problems

1. Existence of more numbers of brands ; there are more the 9000 brands total registered in the DDA, with respect to the size of the country this the huge in the number .this has made difficulty for the customer to the choose the quality products.
2. As there is open market system in Nepal, it is very easy for Indian companies to extend its market in Nepal. However, it is very difficult to export Nepalese drugs to the Indian market because of so many obstacles. It is very difficult to expand market of local products in Indian market due to very long formality processes and added price in different names.
3. The main problem is that while exporting local drugs in Indian market it should be paid in U.S. dollar.
4. Indian pharmaceutical products enter Nepalese market very easily because of open border.
5. While extending local products in Indian market, US. \$ 5000 for company registration and US\$ 1000 for each product.
6. However, while extending Indian drugs in Nepalese market the expenditure is comparatively very low.
7. Though imported drugs are levied 5% custom duty, many of them are still economical in prices as compared to domestic products because Indian companies are gigantic and produce in high scale thus minimizing cost of production.
8. Besides, Nepalese drugs have very limited market in Nepal only.
9. Although being of high quality, Nepalese drugs are not being able to get market share in neighbouring countries due to government irresponsibility.
10. Even if Nepali drugs manage to reach Indian market, the total price becomes too high to compete with Indian drugs due to extra added price.

11. The total current annual medicine consumption is equivalent to NRs. 11 billions. Out of this only 35% demand is fulfilled by 40 local companies which is very low.
12. The major market share is captured by Indian drugs i.e. 62% of the total demand and the rest 3% by Bangladesh and third countries.
13. Nepalese producers are reluctant to increase supply or production of Nepalese drugs to fulfill increasing demand despite high quality of drugs and potential unutilized capacity. The main reason behind this is inappropriate export policy of drugs and government negligence toward this sector.
14. In case government is unable to reform export-import policy Indian product may expand their market further and Nepalese pharmaceutical industries have to suffer.
15. Nepalese producers have to pay 5% custom duty, 2% surcharge and 13% vat while importing packaging materials, laboratory chemicals and equipments which contributes to rise in cost of production.
16. Another major problem for Nepalese drugs in Indian market is inspection and quality testing process which is as long as one year. Some drugs with shorter life may expire during testing period. Even those drugs with longer life will get less market.

1.3.2 Prospects

1. Around 70% of the medicines are imported from India and other countries, Nepalese pharma companies have enough opportunity to snatch this huge market share.
2. Nepalese companies have not been able to produce injectables yet which also occupies a great market share. If injectables are introduced by domestic pharma companies, the dominance of Indian companies will significantly decline.

3. Now, the government is also giving priority to this industry and thus making policy to safeguard domestic pharma companies and restricting unethical and substandard companies from India.

1.4 Focus of the Study

Nepali pharma industry is one of the growing industries in Nepal. It is in the process of continuous advancement. Besides these Indian Products are dominating Nepali pharma sector in so many cases. Another greatest challenge towards Nepali pharma industry is the membership of WTO. As being a member of WTO Nepali products has to compete with the other foreign products globally, which are highly technological and may be cheaper in cost than Nepali products. In this critical situation, Nepali producers have to centralise their efforts on capturing their local market first.

This study is mainly focused on how the pharmaceutical industry is shaping in this kingdom. This study is also focused on identifying and analyzing the actual sales of Nepalese, Indian and foreign companies as well as how the doctors, chemist and consumers prefer different drugs produced from different countries.

1.5 Significance of the Study

This is the 21st century; we can say it the age of science and technology, each and everybody all over the world all are concerned about their health. We are achieving the sustainable development in the field of medical science. People in the past working as a Dhama and Jhankri are now started preferring the doctors to their patients. Millions of people over the universe are getting advantage through medical science directly or indirectly.

The pharma industry is in a growing state in Nepal. There are enough opportunities for domestic companies if they compete strategically. This industry,

among others, is comparatively doing well. Government is also having policy of protecting this industry. Since, this industry is also contributing to the national economy; it is the responsibility of all to protect it. This study will certainly benefit all the stakeholders involved in this sector. This study will also help Nepalese entrepreneurs to understand the scenario of Nepalese pharma market that will further assist to formulate effective marketing strategy. To some extent, this study will contribute to safeguard domestic pharma companies and consequently helps to uplift national economy.

1.6 Statement of the Problem

We know that even a superior product cannot be sold, if the advertiser fails to speak about it. In the perfect competition market there are various similar types of products available. At that condition not only the producers' efforts are sufficient, there may be great roles of dealers, wholesalers, retailers as well as the local governments.

Among different industries existing in this country, the one that is prospering even in this chaotic business environment is pharma industry. It is growing with significant rate. Though domestic pharma companies have ample opportunities to grow just by snatching the share of Indian companies, they are doing so in a slow pace probably because of poor strategic planning and lack of proper market analysis. Particularly for Nepalese companies, analyzing the status of market share is of utmost importance because it gives ideas to explore the areas of opportunities that will contribute to making effective market plan. Further, studying trends of grasping market share by different market player gives Knowledge to set the short and long-term objective. The market share doesn't increase until and unless the consumers and supporters prefer the product. So, identifying the taste and preferences of customers is also equally important. The limited success of

domestic pharma companies to grow is perhaps due to the lack of effective market share analysis.

1.7 Objective of the Study

The objectives of the proposed study are as follows:

1. To analyze the market share of Nepalese, Indian and foreign pharma companies in Nepal.
2. To analyze the degree of preferences by doctors, drug sellers and consumers towards Nepalese, Indian and foreign drugs.
3. To study how far Nepalese pharma companies are able to substitute the Indian and foreign companies.

1.8 Limitations of the study

As this is the study for the partial fulfillment for the degree of Masters of Business studies, some of the limitations faced at the time of preparing this study are listed below:

- i. Due to the usual problem associated with limited availability of the recent data, limitation of time factor and the difficulties surrounding the clear determination of direction, despite the attempt to be methodologically rigorous the result must be treated with a fair degree of caution.
- ii. The study provides a general overview on the overall situation on market share of Nepalese and foreign pharma companies.
- iii. The limitation of the data used for the study also needs to be considered. The relevance of secondary data relies on the authenticity of publications.
- iv. Random sampling has been undertaken to collect information from the respondents.

1.9 Organization of the Study

The study has been organized under five chapters.

Chapter one contains background of the study, focus of the study, statement of the problem, objective of the study, importance of the study and limitation of the study.

The second chapter is designed to examine the review of related literature; especially the advertisement and its effectiveness on consumer behavior. Other relevant past studies also has been reviewed.

The third chapter describes the methodological aspects of the study. It contains research design, population and sample, nature and sources of data, data collection procedure and data analysis tools.

The fourth chapter incorporates the main body of the study, data presentation and analysis. This chapter highlights the objectives wise data presentation, analysis and interpretations. Major findings of the study are also presented in this chapter.

Finally, a summary, conclusion and recommendations are presented in this chapter five. In addition, an extensive references and appendix are presented at the end.

CHAPTER – II

REVIEW OF LITERATURE

2.1 General Overview

Pharmaceutical Industry has been growing as one of the fastest high technology industry in the world. According to the IMS health, the premier medicinal market research institution of the world the global market of medicines is more than US\$400 billion and is growing at a rate of about 8% per annum. Although the world scene of pharmaceutical industry is dominated by big multinationals big economies, there is place for small quantity players especially for making medicines for the niche market. The rate of growth of pharmaceutical industry in developing countries is generally more than 15% per annum. In our neighboring country, in India it is growing by at a compound rate of 16.44%. As the medicines and drugs do have direct bearings on the life of the people, this industry is highly regulated. With the development of the science especially of biological and chemical sciences and recently of biotechnology this industry has made tremendous advances. Nepal is a very suitable place for the pharmaceutical industries. The clean environment and mild climate prevailing in much of Nepal makes it suitable for production of formulation medicines and bulk drugs. With proper Policy and appropriate initiatives Nepal could be made one of the centers of drug making.

The tradition of making drugs for avoiding or curing the disease is very old in Nepal. The traditional healers and vaidyas used to make drugs using the herbs found in various parts of the country. The tradition of making modern allopathic drugs started more than thirty years ago with the establishment of Chemi Drugs in Kathmandu in the year 1971. It was entirely a private sector initiative to produce modern medicines to supply to the national market. The royal Drugs, the public

sector response to the challenge of supplying quality drugs through local production came into existence some two years later. Other industries followed and the development of pharmaceutical industry came into the existence later.

There are 42 pharmaceutical companies in operation in Nepal now. These establishments command 25 % to 32 % of the market share of the pharmaceutical products of the country. The number of industries and their combined market share has been growing.

There are 279 pharmaceutical companies with more than 8600 brands of medicines operating in the country. The 42 Nepalese companies have 3496 brands registered in their name. About 4900 Indian and a little more than 500 other country brands are also available in the Nepal market. The proliferation of the brands in Nepali drug market has created difficulties for the government, consumer, and the physicians alike.

The number of whole sellers/importers dealing in drug and medicines is about 2000. The number of retailers registered with the appropriate agencies is 14000. In reality the number of retailers dealing in drugs and medicines in the country is estimated to be around 21000. The drugs and medicine are either used as per the prescription of the doctors, whose number in the country is less than 2500 or in the hospitals and nursing homes, which number about 150. On top of them it is a common practice in the country to sell drugs over the counter. Drugs with serious side effects are often sold and consumed without proper guidance of the physicians. This has resulted in the often misuse of drugs leading to unwanted consequences.

It is estimated that the market size of medicines in Nepal is worth of about Rs.10.6 billion and is growing at a compound rate of 19% per annum. But it is rather unfortunate that the Nepal production has only 32% share in the market. It is not

the lack of capacity or the initiatives of the pharmaceutical producers, but it is rather the unfair competition coming from the cheap and often dubious quality import from across the border that is hampering the growth of the pharmaceuticals in the country. Nepali pharmaceutical producers are not able to enjoy a level playing field in the market. It is rather astonishing that our industries have exhibited spectacular growth despite ass odds prevailing in the market.

After establishment of the DDA, every effort has been made to regulate the pharmaceutical industry to operate with effective implementation of world health recommended good manufacturing practices (WHO). With stringent regulatory norms Nepalese pharmaceutical industries are in the process of obtaining WHO GMP certification/ DDA had initiated the enforcement of GMP norms as guidelines for few years and planning to make the norms as mandatory by next couple of years.

This chapter deals with the literature of the previous study on advertising. Only few numbers of studies are conducted in the field of pharmaceutical industry. This chapter provides some conceptual theory of advertising and review of related topics. This chapter provides different information about advertisement from various articles and journals.

2.2 Theoretical Concept of Marketing

In this competitive era, marketing has entered a new dimension. This is the era of marketing. Every manufacturing organization needs to produce and market products to achieve its goal. With increased consumer awareness due to globalization and IT development, many new challenges have arisen in the marketplace. Because of rapid improvement in technology, the marketing logistics have totally changed the marketing practice both at the domestic and international fronts.

Hence to survive in such dynamic environment an organization must be able to implement the modern marketing concept, organize the marketing department, monitor and scan marketing environment and establish the information networks. It should also be able to plan, implement, evaluate and control marketing activities balancing the interests of the organization, customers and the society. Thus strategic planning and integrated implementation have not only become a demand of time but also an indispensable aspect of the modern marketing.

Definition of Marketing

Different individual and association have tried to define marketing in their own terms. For instance, Prof. Philip Kotler has defined marketing as “a social and managerial process by which individual and groups obtain what they need and want through creating offering and exchanging products of value with others”.

American Marketing Management Association (AMMA) has defined marketing as “the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational goals. Thus in brief, marketing encompasses all the activities aimed at satisfying the needs of the customers through the exchange relationship to achieve organization objectives with social responsibility in a dynamic environment of the target market.

Increasing competition, changing customer want, declining sales, slow growth in sales and increasing market expenditure are some reasons, which force organization to adopt and embrace the marketing concept. As information is the lifeblood of marketing to analyze marketing opportunities and threat and finding strength and weakness of the organization, marketing research has great role in marketing.

According to Philip Kotler “Marketing research is the systematic design, collection, analysis and reporting of data and findings relevant to a specific marketing situation facing the company”.

According to American Marketing Association “Marketing research is the function which links the consumer, customer and public to the marketer through information used to identify and define marketing opportunities and problem, generate, refine and evaluate marketing actions, monitoring marketing performance and improving marketing as a process.

Thus marketing research is a direct result of adoption of the marketing concept by business organization. Marketing concept gives more accurate understanding of consumers need, preference and delivery of most want satisfying product and service to the present and potential consumer. Competitive environment of the market has forced most organization to give up “hit and trial” method for business and encouraged them to adopt marketing research for better understanding of consumer, competitors and micro and macro market forces. Thus modern marketing concept emphasize on achieving organizational objective by marketing activities integrated toward determining and satisfying customer need and target market. This new philosophy of marketing need top management support, market intelligence system, organizational restructuring, human resource development and appropriate marketing mix.

Marketing Mix

Marketing mix is defined as the set of marketing tools that organization use to pursue their marketing objective in the target market. These tools or marketing mix are known as 4Ps: product, price, place and promotion which are interrelated i.e.; decision in one element usually affects actions in others. The total marketing

effort consists of the design, implementation and evaluation of the marketing mix. Organization should strike right balance between these 4Ps.

1. Product mix to satisfy consumer need, quality variety, branding, design (shape, size, color), packaging.
2. Price – reasonable, discount in bulk buying too stockiest, allowance, terms of sale.
3. Place – distribution channels-distributors, retailers. Physical distribution – order processing, material handling, inventory management, transportation.
4. Promotion mix – advertising, sales promotion, public relation personal selling, direct marketing.

According to American Marketing Association, “Marketing is the process of planning and executing the conception, pricing promotion and distribution of ideas. Goods and services to create exchanges that satisfy individual and organizational objectives. “This definition has been widely accepted by academics and practitioners. However, it has been highlighted in recent studies that practitioner of marketing view customer satisfaction as the most important concept in a marketing definition while academics view exchange as the most important concept in a definition.

"Advertising by word of mouth is probably the earliest form of advertising because verbal skills were developed first. Advertising was given the commercial status the day man enter into the process of exchange "(C.N. Santakki, 1989: 25).

According to prof. Kotler,(2003) “Marketing is a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and value with others. “This definition of marketing has the following implications:

-) The starting point for marketing lies in human needs and wants:

-) People satisfy their needs and wants with products
-) Product choice is guided by the concepts of utility, value and satisfaction i.e. and individual will choose a product that will produce the most utility per rupee spent and maximize value and satisfaction.
-) Marketing emerges when people decide to satisfy needs and want through exchange and for successful exchange there is a need for marketing. There is no unanimous definition of the term marketing, different writers have defined the term marketing in different ways. However it has been defined by some authorities that marketing is that field of study which is closely associated with the production of want satisfying goods or services in the interest of both the producers and consumers.

It has been emphasized that marketing is one of the important economic activities like other important activities such as production and consumption. The questions of marketing arise before the production of goods and services and ends after the satisfaction of the consumers' want but the real activities of marketing starts after the production. Marketing focuses on making the product available at the right place at the right time and at a price that is acceptable to customers and on informing customers in a way that helps them determine if the product is consistent with their needs.

Function of marketing deals with those business activities that move the goods and services in a market. To sell its product every company should involve in following activities (S.A Shrelekr, 1998).

-) Marketing Research
-) Product Planning and Development
-) Pricing
-) Promoting

-) Selecting Channel of Distribution
-) Physical Distribution

In addition to the above-mentioned activities marketing should also study the external factors, which affect the smooth flow of the goods in the market.

Marketing in Nepal

The marketing philosophy has not been well adopted by most organizations in Nepal. The industrial sector is in a developing stage. Although the role of services and production has been growing in the recent years, marketing has remained fragmented due to the topographical diversity, poor transport and communication facilities. Although public sectors remain dominant in the Nepalese economy, the private sector is developing. The advent of global companies has resulted in the transfer of basic marketing skills, capital and technology. It is high time for Nepalese enterprises to adopt modern methods to concentrate on traditional production and selling concepts. This new concept is gradually emerging as a part of the management philosophy for meeting the marketing challenges of the 21st century.

2.3 Review of Related Studies

1. Drug

Drug is a single active chemical entity present in the medicine that is useful for diagnosis, prevention, treatment or cure of diseases. WHO (1996) has given a more comprehensive definition as “Drug is any substance or product used or intended to be used to modify or explore physiological systems or pathological states for the benefit of the recipient”.

Similarly, WHO has defined health as “a state of physical, mental and social well-being and not merely the absence of disease or infirmity”.

2. Essential Drugs

Essential drugs are those that satisfy the health care need of the majority of the population. They should be available all the time in adequate amount and in appropriate dosage forms. WHO has sorted out the list of essential drugs (EDL) in drug bulletin. This EDL is first approved in 1986. EDL is revised 3 times. Recent revision was done in 2002. EDL is based on WHO model list. However, in Nepal EDL is made to suit Nepalese condition.

3. Pharmacy

Pharmacy is the art and science of compounding and dispensing drugs or preparing suitable dosage forms for administration of drugs in human or animals. It includes collection, identification, purification, isolation, synthesis, standardization and quality control of medical substances.

4. Pharmacology

Pharmacology is derived from Greek word “Pharmakone” which means study or knowledge of drugs, mostly that are relevant to effective and safe use for medicinal purposes. It deals with history, sources, physical and chemical properties, biochemical and physiological effects, mechanism of action, absorption, distribution, biotransformation, excretion and therapeutic use of drugs.

5. Pharmacopoeias

“Pharmakone” means drugs and “pio” means compounding. These are authorized and official books, which are published by authorized bodies under some laws and government regulations.

A committee of qualified pharmacists, physicians and pharmacologist is appointed in every country in order to regulate the strength and quality of different drugs

preparations, and authority that publishes pharmacopoeia has backing of respective government.

The relevant information is outlined in the form of monograph as under:

-) Name and source of drugs
-) Molecular formula
-) Structural formula
-) Solubility
-) Identification methods
-) Methods of preparation
-) Dosage form
-) Methods of standardization
-) Assay or bioassay
-) Preservation and storage
-) Dose and therapeutic dose range etc.

The chief purpose of this book is to indicate and maintain uniformity of drugs in quality and standard. Pharmacopoeias differ in different countries. Though all the developed nations developed own pharmacopoeias but United States Pharmacopoeia (USP), British Pharmacopoeia (BP), Indian Pharmacopoeia (IP) and European Pharmacopoeia (EP) are most commonly followed in Nepal. Recently Nepal has developed Nepalese National Formulary which contains the information on drugs on daily use, exclusively and commonly used in the country. As the pharmacopoeias contain rules and regulations which control the quality, potency and standards of purity of drugs, therefore the pharmacists and drug manufacturers are officially bound to follow the rules and regulations in manufacturing their preparations conforming to USP, BP or IP.

2.4 Health Service in Nepal

Nepal is one of the poor countries with total population of around 25 million and births and mortality rate 32.5 and 9.3 percent respectively. These rates are very high as compared to those of developed countries as US, Australia, Great Britain and even other developing countries. The life expectancy of Nepal is 59.7, which is too low compared to European countries. Per capita income in Nepal is \$225, which is not satisfactory. Among total expenditure of Nepal government Rs. 34523 millions, Rs. 1325 millions is in health sector which is almost 3.8% of the total expenditure. However, the result is definitely not at all satisfactory.

These data indicate the pathetic condition of health sector management in Nepal. Hence, the integrated effort of NGO, INGO, Private and public sector is very important to uplift the standard of health care in Nepal. In addition we must efficiently utilize the donation provided by internationals as WHO, UNICEF, UNFPA, EC, JICA etc. which is almost 3 times of expenditure to Nepalese government. Nepal health service consist of mainly 3 components-producer, doctors and consumers. These days people are looking for fastest cure and prevention of disease due to fast pace of life. The consumer's need is satisfied by the supplement of modern medicine i.e. allopathic medicines. Thus medicine has become the most essential part of life.

2.5 Nepalese Pharma Industry

August 27, 2004 will probably be remembered as the most important day in the history of the Nepali Pharmaceutical industry. On this day, five companies out of six that had applied were awarded with certificates for Good Manufacturing Practice (GMP) as per guidelines set by the World Health Organisation (WHO). The awarding of these certificates was based on stringent inspections and comprehensive audits in October 2003, March 2004 and finally on August 2004. The five recipients of GMP certificates that year were Birganj based Nepal

Pharmaceuticals Laboratories (NPL), National Healthcare and Quest Pharmaceuticals as well as Kathmandu based Deurali Janta Pharmaceutical Laboratories and Omnica Laboratories.

The recently awarded GMP certificates have to be renewed at a prescribed duration. In the meantime, if the manufacturing site is no more considered to be in compliance with GMP, it can become invalid. GMP requires companies to follow exact guidelines right from the establishment of infrastructure to manufacture, packaging and distribution. Strict quality control as well as rigid documentation is required at every stage.

According to the WHO expert committee on specifications for pharmaceutical formulations, “Good Manufacturing Practices for pharmaceutical products (GMP) is that part of quality assurance which ensures that products are consistently produced and controlled to the quality standards appropriate to their intended use and as required by the marketing authorization. GMP rules are directed primarily to diminishing the risks, inherent in any pharmaceutical production that cannot be prevented completely through the testing of final products”.

GMP requirements include clear definition and systematic review of all manufacturing processes, validation of critical steps of manufacturing process as well as any significant changes in process, trained and qualified personnel, adequate premises and suitable equipment and services. Use of correct materials, containers and labels, approved procedures and instruction, suitable storage and transport as well as adequate laboratories equipment for in-process control also come under GMP guidelines. In addition, GMP also requires manufacturers to have clear-cut instructions and procedures applicable to the facilities provided, documented records during manufacture as well as of distribution, proper storage

and distribution, an available system for product recalls and examination and investigation of any complaints.

Other companies have also applied for certification and almost all are upgrading manufacturing facilities to GMP levels. The year 2007 (2064 B.S.) was set as the deadline for all companies to attain GMP standards at the end of which time, those failing to comply, will be allowed to function only as repackaging units. Of the 42 industries in operation in the country, it is expected that a few whose financial condition may not allow them to make the substantial investments necessary to upgrade facilities as required, most will have received GMP certificates by 2007.

This is especially true for the newer industries since their infrastructure has been built keeping recent GMP regulations in mind. As for the older facilities, those that have acquired significant market share and those that have better liquidity, are no doubt in the latter stages of fulfilling GMP criteria and will soon be applying for certification. Hukam Pharmaceuticals is reportedly undergoing the final stages of GMP audit. The Department of Drug Administration (DDA) has already extended the deadline by one year, as per Pharmacist Gorkha D.C. at the DDA. “Previously the deadline was 2006 (2063)”.

Whatever the case may be, it is inspiring to see that a critical section of the country’s economy is making progress. Particularly, encouraging fact is that people can expect to get medicines manufactured in their own country that is safe and no less efficacious than those of other countries. Besides, in these troubled times, pharmaceutical manufacturers are providing a significant number of employment opportunities. Nepal pharmaceutical Laboratories has 150 employees in its work force and DJPL has 154 employees out of which 10 are pharmacists, three are analysts, 22 are marketing personnel, 22 are administrative staff, 60 are skilled and highly skilled workers and 35 are unskilled workers. No doubt it has

been a synergy of effort between the industry and the DDA that has resulted in such a promising scenario (Shrestha, Amar Bahadur; 2004-2005).

2.5.1 Pharmaceutical Market in Nepal

Today there are 42 pharmaceutical companies all over the country manufacturing various formulations and some 3496 brands. Another half a dozen companies will probably come into existence in the coming year.

As far as the total market of the country is concerned there are differences in estimates among different sources. This obviously is due to the fact that many companies, for a variety of reasons, are reluctant to disclose their true sale figures. According to DDA authorities, the present market for drugs is estimated to be roughly Rs. 320 crores, i.e. about 30 percent of the total market.

According to Radharaman Prasad, senior administrator at DDA, sales recorded in 1999/2000 was Rs. 590.7 crores with growth of 18.8 percent. According to DDA records, 237 Indian companies operate in the country with 5197 registered brands besides the 3496 brands registered by 42 Nepali companies. This potentially favourable ratio implies a hopeful gap in the market yet to be substituted by local brands. It is obvious that drugs manufactured in the country have gained wide acceptance from the primary customer: doctorsts, as well as from end users, that is, the patients. Certainly, the recently awarded GMP certificates will further enhance consumer confidence and naturally, increase turnover.

No doubt it has taken some time to reach this point and for this, pioneering companies like Chemidrug, RDL, NPL, Lomus and others have to be thanked. At the same time one mustn't forget that around the 1980's, production of bottled saline water had started to take off in a big way with full-fledged production in four such industries. But with the advent of later regulations aimed at improving

quality, bottled saline production fell drastically and two industries closed down soon after. Factors like newer packaging (PVC containers as opposed to glass bottles) resulted in the need for different bottling techniques making investment in new machinery mandatory. This coupled with price reductions in bottled saline imports probably contributed to some manufacturers deciding to call it quits. At present only RDL and Vijaydeep Pharmaceuticals are producing bottled saline.

A similar situation exists at the moment with the new regulations that has made GMP mandatory by 2007. It is quite possible that some industries with low turnover/poor cash reserves but high investment requirements to attain GMP standards may opt to close down in the future. Simca Laboratories, which is in the final stages of upgradation of infrastructure, says they have had to make additional investments of at least Rs. one crore. That is why concerned authorities, especially DDA, must take a realistic overall view in order to ensure the continued progress of all manufacturers. Pharmacist, Gorkha D.C. has an interesting observation to make, “Now our work will become easier since with the new regulations, companies themselves have started to become more conscious thereby sharing the responsibility to maintain quality standards. After all, enhanced reputations after receiving GMP certification will be at stake.” Mukendra Singh, national sales manager at DJPL, agrees, “Definitely, our responsibilities have increased a lot”.

2.5.2 Marketing Methodology

Among the pioneers it should be noted that Nepal Pharmaceutical Laboratories (NPL), established in 1987, is generally credited with promoting locally made drugs in a more professional manner. That is, by promoting their products to doctors and chemists in a more aggressive way as well as by planing more modern methods in marketing. Before that, companies like Royal Drug Laboratories (RDL) and Chemidrug while they produced essential and OTC (over the counter) drugs, were less proficient in their marketing efforts. In fact during earlier years,

RDL had not felt the need to actively promote its products as it had been receiving preferential treatment in the supply of government tenders for pharmaceuticals. As a result, RDL's turnover reportedly had soared to almost Rs. 12 crores a decade ago. However, with more open market systems coming into play RDL lost its preferential treatment in government business and this, added to bad management practices and poor marketing, has resulted in the company showing losses for many years. Now and the company's turnover has reportedly dropped drastically. Turnover figures of leading Nepali companies show a healthy growth. For instance, latest figures by ORG (an international market survey group) indicate growths of 38 percent, 18 percent and 29 percent respectively for Lomus, NPL and DJPL in 2004/2005. Lomus Pharmaceuticals, not yet a recipient of the GMP certificate, nevertheless has a big share of the market due to its effective marketing techniques and large range of products. Even in this prevailing unpredictable political and economic situation for so long, pharmaceutical companies are still managing to grow positively unlike most other industries in the country.

Companies have become more aggressive in the market with increasing numbers of medical representatives in their sales force, ensuring wider coverage, and with newer marketing strategies including better presentation methods and tools besides well planned visiting schedules. Medical Representatives are also being given better in house and field training and their efforts are being awarded with lucrative incentive schemes. Rapid increase and diversification in product range is also a key marketing strategy being adopted by most companies.

Besides this, companies are making efforts to have closer rapport with concerned professional like doctors, chemists and medical students by sponsoring medical student scholarships, doctor and intern meets and medical symposiums as well as by participating in functions involving those concerned with the trade. DJPL's Mukendra Singh says, "We have had a scholarship scheme for medical students

for quite some time now. We provide scholarships to five students at graduate level studies and one scholarship at postgraduate level. These are based on recommendations from Nepal Medical Students' Society and Nepal Medical Association respectively. We are also willing to fund medical research in the future.”

Companies like NPL and DJPL have also established their own in-house market support divisions with qualified pharmacists in the ranks. Pharmacist, Jyoti Adhikari heads the Market Development Division at NPL and says, “Our job is to provide the sales force with the newest scientific data and information concerned with recent developments in pharmaceuticals. They in turn disseminate such information to doctors. We also conduct periodic trainings and prepare promotional material in line with the needs of the market.” Besides, many companies have now sub divided their companies into a number of divisions, each division responsible for the marketing of a specific number of products. Strong distribution networks all over the country are also playing a significant part in local companies' success. NPL has 65 distributors all over the country.

2.5.3 Competition

Local companies' success has to be especially appreciated because they are operating under difficult circumstances where marketing efforts have been curtailed in many parts of the country due to the ongoing violence. Also not only do they have to compete among themselves, but also with the 237 Indian and Multinational Companies (MNCs) who have had full fledged marketing operations as well as established brands in Nepal for a long time. Although a small country, Nepal's market is said to have a high brand per capita ratio with a total of about 8693 brands which is said to be higher than neighbouring countries like Sri Lanka and Bangladesh. The situation is such that one type of medication, for example, the antibiotic Amoxycillin, may be available in as many as a dozen brands in the

market. Similar is the case for many other antibiotics and OTC drugs like vitamins, painkillers and gastro-intestinal medication.

An excessive number of similar brands often lead to problems of substitution, i.e. chemists substituting a prescribed brand in preference of another that might be more profitable to them. This has obviously resulted in cut-throat tactics by companies, leading to unhealthy and unethical competition such as under-pricing, attractive bonus offers and substantial gifts to not only retailers but also to doctors. However, according to pharmacist, Gorkha D.C. of Department of Drug Administration (DDA), “There is now a decline in number of imported brands because of tougher regulations, and on the contrary, an increase in domestic brands”. Attempts are also being made to control manufacture and imports of brands that are already available in excessive numbers in the country. At the same time Mr. Umesh Lal Shrestha of Quest, have a different view, “Having a large number of brands is not a major problem. We are capable enough to compete in any scenario. Besides, controlling the number of brands does not confirm with the spirit of liberalization.”

2.5.4 Therapeutic Groups

Since antibiotics (or anti-infectives), respiratory (including cough medicines), vitamins/minerals (including multivitamins, iron and mineral supplements), gastro-intestinals (including anti-diarrheals, digestive enzymes, antacids) and painkillers (including analgesic, anti-inflammatory, anti-pyretic) constitute more than 50 percent of the total market, it is not a surprise that many companies have them in their product range. As it is, many of the older companies, particularly Indian companies and MNCs, were founded on such products that were once their research products and only later on because of huge popularity, became over the counter (OTC) drugs. Even now, a substantial part of their turnover is dependent on such drugs. For example, when the popular analgesic, Novalgin and the equally

popular antispasmodic, Baralgan of Hoechst Pharmaceuticals (now aventis) was banned some years ago due to reports of adverse side effects, the company's sales in Nepal was affected to a significant extent. According to industry sources, DDA is seriously thinking of banning sales and manufacture of general cough preparations (said to be of doubtful use), as well as curtailing sales and manufacture of vitamins (which doctors say is being inappropriately over used).

Local companies who have made it good also have to thank their volume builders like, in Nepal Pharmaceutical Laboratories' (NPL's) case, the anti-inflammatory/analgesic Brucet and the vitamin, Vital, and in DJPL's case, iron preparations like Ferofolic and the vitamin, Fortiplex, Lomus's D-Cold and Lomoplex are some of their major volume builders. National Health care's major sales volumes come from its Amoxicillin range, Nemox, as well as from its Paracetamol, Niko, Not too long ago; many companies' main bread and butter were such OTC formulations. With high growth and healthy cash flows, these and other leading companies have diversified their range significantly. And even though their popular OTC brands still continue to be major volume builders, a company like NPL that once depended to a large extent on a few such formulations for its maintenance, has now almost 150 brands covering 10 therapeutic groups. In fact today its calcium channel-blocker Amlod is among the leaders in cardiac therapy medication and is widely prescribed by doctors all over the country. National Healthcare has 125 brands according to marketing director Radheshyam Mahato and has recently launched Amimide, a potassium sparing diuretic.

Similarly, DJPL has impressed a leadership position in anti asthmatic medication with its Beta 2 range, and has 77 other brands covering eight therapeutic groups. DJPL was also among the first to introduce an antioxidant, called Careage. Many of the local companies are manufacturing newer antibiotics like third generation Cephalosporin as well as the latest Macrolides and Fluoroquinolones besides, of course, older antibacterial like Ampicillin, Amoxicillin and Tetracycline. It should

be noted here that antibiotics command higher per unit prices and therefore contribute substantial volume to company turnovers. According to Radheshyam Mahato, marketing director of National Healthcare, a major part of the company's turnover comes from its sales of its Amoxicillin range, Nemox, and Para-cetamol, Niko.

It is also worth noting that some companies like Asian and the two-year-old Quest have, right from their foundation, decided to walk a different path and manufacture mostly specialty drugs like cardio-vasculars, anti-diabetics and psychotropics. Quest has 40 brands in nine therapeutic groups and manufactures cardiovasculars like Mylod, anti-diabetics like Metfor and cholesterol lowering drugs like Bezafibrate. According to Umesh Lal Shrestha, CEO of Quest, "We have plans to further introduce a range of drugs that are not me-too products." No doubt it is a good strategy to shape one's niche in the market, lack of qualified prescribers in rural areas and poor economy does congest such companies' ambitions and they too have realized that a few OTCs are needed in their stables.

According to CEO Mahesh Pradhan of Omnica Laboratories, market size has never been that important to them, "We do not have many brands but most are prescription drugs. We would like to stress on quality and not quantity." In fact, according to him, "Even when GMP requirements were not spelt out, we had already installed an AHU (Air Handling System), one of the major infrastructure requirements for GMP." Shrestha is proud of the fact that it was due to ethical marketing that he could show profits right from the third year of operations. Perhaps high margins that are inherent in sales through prescriptions drugs allow him to be complacent about market size.

2.5.5 Market Data

As far as market data is concerned, in the absence of any competent reporting organization in the country, one has to rely on professional data collecting agencies from outside Nepal such as ORG which is a leading market research group in India. Data from such organizations, even if they are capable and well trusted in India, cannot be said to be foolproof in Nepal's context, keeping in mind the difficulties of the task demanded. As Umesh Lal Shrestha of Quest says, "ORG reports do not reflect the true picture." Of course, it is better to have something rather than nothing at all. At the same time, if ORG figures are anything close to the truth then it contradicts all claims by concerned authorities about the total market size being what it is, and should be an eye opener for all concerned, including the need for more active measures and caution in collection of data.

According to ORG reports (2004/05) Lomus, NPL and DJPL hold the first three positions in the Nepali market with sales of Rs. 13.1, Rs. 11.0 and Rs 10.5 crores respectively. National Healthcare with sales of Rs 8.7 crores is in sixth place, up from eighth place a year ago. It must be mentioned here that National Health care, a recent entrant in the market has been reportedly showing very fast growth that is exceptionally good by any yardstick. Their outstanding success is attributed to a large product range coupled with an innovative marketing strategy. Other in the top twelve are Indian and Multinational companies {MNCs} Like Aristo (Rs. 8.9cr), Dabur {8.4cr} Knoll (Rs. 6.8cr), Ranbaxy (Rs. 6.4cr), Nicholas (Rs. 5.7cr), Alkem (Rs, 5.6cr), Aventis (5.1cr) and Cipla (4.8cr).

Many in the industry are skeptical of the above figures because, as Mahesh Gorkhali, marketing director of NPL, says, "It is difficult to get the correct picture since companies do not want to reveal their true sales figures for a variety of

reasons.” Apparently, those with high turnover are wary of tax authorities and those with low turnovers would like to display inflated sales to enhance their reputation. He adds, “The top five Nepalese companies each probably will have from Rs. 15 crore to Rs 21 crore in sales this year.” Radheshyam Mahato of National agrees, “Yes the top two Nepalese companies have sales exceeding Rs. 20 crore each while the other three in the top five should have about Rs. 14- Rs 15 crores each.” According to Umesh Lal Shrestha of Quest, “Our turnover should be around Rs. Five crores this year”.

According to Naresh Shrestha, marketing manager in the Nepal Pharmaceutical Laboratories, “The top five Nepali companies are NPL, Lomus, DJPL, National and GD Pharmaceuticals, and their combined sales should be around Rs. 90 crores.” His statement perhaps supports with the figure expounded by DDA authorities stating that the Nepal pharmaceutical market is worth at least Rs. 1000 crores and that Nepali companies account for 30 percent of that.

Among the therapeutic groups, again according to ORG reports, anti-infectives (Rs.67.4cr), respiratory (Rs 26.6cr), vitamins/minerals (Rs. 25.4cr), gastro-intestinal (Rs. 25.4cr) and painkillers (Rs. 18.7cr) constitute a major part of total turnover. Others like cardiac, dermatological, gynecological, anti-allergic, anti-diabetics and psychotropic, etc....constitute the rest.

2.5.6 Market Size Comparisons

According to industry sources most pharmaceutical manufacturing units in the country are operating at less than 40 percent of their capacity. In 2004, DJPL’s utilized capacity was 40 percent. The small size of the market does place a strain on economics of scale. To get a better perspective on this issue it should be noted that the market in India for many multinationals is generally one percent of their worldwide turnover and the market for the same multinationals operating in Nepal

is one percent of their sales in India. For example, Aventis's all India sales was Rs. 536.7 crores last year compared to Rs. 5.1 crores in Nepal. With Indian companies too, the same yardstick applies. Ranbaxy had sales of Rs. 920.7 crores in India compared to Nepal sales of Rs 6.4 crores.

Looking at the large size of India's population it does seem surprising that MNC's Indian sales account for only one percent of their worldwide turnover, but one must also consider that due to government control on essential drug prices, Indian drugs are among the cheapest in the world. Nepal's population of almost 2.5 crores also cannot exactly be called small if we are to compare this with many countries in Europe. However, poor economy, poverty, less than ideal health services and relative isolation of many regions within the country forces one to conclude that the full potential of the market is yet to be tapped.

2.5.7 Export Potential

With the domestic industry becoming increasingly competitive in relation to imports and recent technological progress as evidenced by the awarding of GMP certifications, there is widespread belief that Nepali companies will now be able to market drugs abroad. At the present moment however, this optimism should be taken as just that because one must remember that the worldwide pharmaceutical market is among the most competitive amongst all industries. Even in Nepal, DDA does not allow outside companies into Nepal if they do not have WHO-GMP certification, a law that was not there until a few years ago. One must keep in mind that in some countries it is not mandatory that manufacturers have WHO-GMP, instead opting for other kinds of GMP such as ASEAN-GMP in Malaysia.

As far as exports are concerned, according to pharmacist Gorkha DC at the DDA, "No Company has as yet applied for CCP (Certificate of Pharmaceutical Product moving in International Market) which is a necessary requisite for exporting

medicines”. Some years ago, Nepal Pharmaceutical Laboratories (NPL) did make attempts to penetrate the Indian market by exporting five brands worth about Rs. one crore to India. The long delays in having their products analysed by concerned Indian authorities (sometimes even as long as nine months), led to many of their products’ shelf life being reduced to near expiry period levels. Here one must understand that drugs on an average have an expiry period of three years and some like antibiotics and vitamins, only 1.5-2 years. And then there is the added fact that retailers are free to return drugs when the expiry period left is less than six months. Such problems probably resulted in NPL discontinuing their pioneering efforts.

One should of course not be pessimistic and one mustn’t underestimate the competitive ability of Nepali pharmaceutical industries but according to Mahesh Gorkhali “It would be more realistic to first gain more of domestic market share by gradually replacing imported brands with domestic ones”. Of course this in itself is a big challenge because foreign companies that are active in the Nepalese market operate from a very strong base. This is especially true for Indian companies who have much larger economics of scale to play with, the Nepal market being only a small part of their overall turnover in India. Besides of course, they do have a number of established brands. However, Gorkhali is confident about gaining increased ground domestically and says, “NPL was the first company in Nepal to produce cardiac, diabetic and drugs for neurological disorders. We were also the first to export. Now with GMP, we will definitely increase our market share dramatically”.

DJPL on the other hand have set up an export division and according to Mukendra Singh, National Sales Manager, “We are looking at markets like Africa, CIS countries and Latin America.” He is of the opinion that the Indian market is a

tough not only due to its strong domestic industry but also because of long bureaucratic delays in procedures.

According to Quest's Umesh Lal Shrestha, "The government's attention towards this industry is nil. There is no initiative at all from their side towards developing and promoting an export market for pharmaceuticals. Things like export incentives and sending delegations abroad to explore markets just hasn't crossed the government's mind".

2.5.8 Future Plans

Besides exploring markets abroad, domestic industries are now feeling the need to diversify further by investing in production of sophisticated formulations like injectables and vaccines. This is one very important area where domestic companies can really contribute to the self-reliance of the country, but because the manufacture of such formulations requires extremely high investments, it is possible that many will not find it feasible as a business venture. Presently, one company in Dharan, Shiv Pharmaceuticals has been manufacturing injectables for some time now but it is yet to be seen how the mandatory requirement of GMP by 2007 affects this company. Another company National Health Care has also started to manufacture injectables from 2007, right now they are doing very well. According to Mukendra Singh of Deurali Janta Pharmaceuticals, "Up-gradation of our manufacturing facilities is ongoing and we also have plans to manufacture injectables in the future." In the meanwhile, NPL has started entering into the process of setting up injectable plants and have already started construction of new buildings. According to Radheshyam Mahato, marketing director of National, "We had constructed a 30,000 square feet injectable plant which has been in operational by this year. This is in addition to the existing 32,000 square feet infrastructure we already have. The new plant has cost us Rs. 10-11 crores".

2.5.9 Government Policies

While on the whole, DDA's supportive role has to be appreciated as far as policies for this industry are concerned, the industry does have a few complaints. For instance, while the duty levied on raw materials is only one percent, duties on packing materials, laboratory chemicals and equipment are reported to be much higher. It is Five percent customs, two percent surcharge and 13 percent Vat but import of finished products attracts only 5 percent. As almost all of the main raw materials as well as many packaging materials (for instance, bottles) have to be imported, the higher custom duties do have an effect on competitiveness of local industries. At the same time the industry should be thankful that there are no price controls like in India, but of course, because they have to compete with their Indian counterparts, market forces are in power while pricing.

One area of concern now and in the future is the risk of counterfeit drugs finding their way onto chemists' shelves. This is very real and clear danger keeping in mind the fact that extremely large instances of counterfeiting have been discovered in India, especially in adjoining states like Bihar and Uttar Pradesh. Because the production of identical packaging is quite easy nowadays, one cannot be too careful in this matter and surely this is a major area of concern to not only manufacturers and authorities, but to patients as well. This responsibility and challenge lies heavy on the shoulders of DDA (The BOSS, 38-46).

2.6 Related Study in Nepal

This study is not the only study in the area of Pharma sector. However, very few studies in this area had been conducted. The major important two studies are as follows:-

A study has been done by Shrestha, Gopu (2001), entitled "A study of attitude among medical practitioners (Doctors) towards National Pharmaceutical Industries."

The special objectives were as follows:-

-) To find strength and weakness of national pharmaceutical products (Medicine).
-) To find out the factors affecting to prescription of national drugs.
-) To find out doctors attitude toward national pharmaceutical products & industries.
-) To collect doctors recommendations and their preference to compete with foreign industries.

Major Findings of the study

1. Easily Accessible is the major strength of national products, which is a vital part of marketing mix (4Ps) because there is no any alternative of using such medicine and if this strength is not available there is more chances of substitution with more profitable medicine for chemist.
2. Medicine totally depends on its quality and its strength to cure diseases, and this is only possible if doctors believe that national drug has same capacity as imported. Because research found that Nepalese products are creating goodwill on reliability and effectiveness, this is a positive aspect for national industries. The situation of finding 30-35% doubtful drugs from imported drugs, doctors may choose national drugs as a substitution, because this will be ultimately a good opportunity for national industries.
3. Doctors believe that national industries are trying to hire professional pharmacists for quality production, which finally leads doctor's confidence on quality production from National Industries.
4. Doctors are less confidence that Nepalese companies are following Good Manufacturing Practice (GMP) standard; this is may be due to lack of resources, infrastructure or competencies among entrepreneurs' marketing strategy.

5. Major weakness of Nepalese products is that they are produced without using latest technology. Because using of latest technology is more reliable than traditional system.
6. Produced goods were not packed in scientific ways which preserve their strength for long time i.e. attractive packaging is not available.
7. Nepalese products are marketing like commercial products such as toothpaste, soap etc. which is the major drawback for medical field because too much commercial strategies leads to inferior quality, ultimately failure.
8. Doctors recommend government to formulate appropriate policy and effective implementation. The effective controlling system not only discourages commercial pharmaceutical industries but also help to promote professionalism.
9. Strengthen quality control componements such as Department of Drug Authority and Royal Drug Research Laboratories (RDRL). RDRL's controlling of quality and effective monitoring system is the best way to keep the health management system more sound.
10. Policy makers are also harassing Nepalese Industries because they are benefiting from personal benefits. This may be due to inappropriate monitoring system because according to policy, national industries must get first priority but big procurement tender mostly fall in the hand of importers.
11. Doctors feel that policy makers still not convinced that Nepalese companies are able to produce quality as imported drugs.
12. The demand of pharmaceutical producers association (APPON) to limit entry of various brands of drugs is of no importance to doctors because doctors feel that these factors do not affect to prescribe national products. But if this is the issue for national development and to discourage illegal trade it may be fine.
13. Doctors recommend Nepalese companies not to compromise in quality even in any cost and situations because they feel that excellence to quality ultimately give a lot of benefits.

14. Doctors feel that good packing, good detailing (describing of medicine's features) not only the best way of marketing products but also to convince doctors regarding maintenance of excellent quality. Because if Nepalese companies able to show evident or proof that they are following recognized pharmacopoeia and GMP standard, it would be a one step ahead to build confidence among doctors.
15. Doctors feel that if companies produce fewer items it may drive them to excellent quality, because they only go with specialized on such item.

Another study had been done by Pakwan, Karuna (2003), entitled, "A study on the present status of DJPL and its marketing". Major objectives of the study were as follows:-

-) To find out the present status of DJPL.
-) To find out the marketing strategy of DJPL.
-) To analyse the Nepalese doctors as well as wholeseller and retailer's attitude towards Nepalese drugs.

Major Findings of the study

-) From the study of doctors' response to the questionnaire prepared, it is observed that the doctors have favorable attitude towards Nepalese drugs as regard quality as per WHO standard.
-) The presence of innumerable substandard brands can hardly confuse professional doctors who are quality conscious. However, there are unethical marketing practices, drug substitution with substandard brands, pushing strategy by some retailers, which should be penalized.
-) Such practices can not only hamper national drugs industries but also spoil the reputation of the responsible and noble profession. Therefore, emphasis should be given to train the medical representatives as well as retailers about

the quality products and their effects as they are the ultimate promotional tools.

-) Nepalese pharmaceuticals have come along way in the last few decades. However there is ample scope to fulfill drug demand inside the nation as well as outside the nation provided that they maintain the quality as per WHO GMP standard.
-) Government should provide institutional support to the Nepalese pharmaceutical industries to compete with the foreign pharmaceutical industries in the global market.
-) In the present context, when Nepal is striving to get the membership in WTO, the integrated effort from government, NGOs, INGOs, public as well as private sector drug manufacturers help to make our position strong in the target market.
-) The study of the response of the producers emphasize that Nepalese producers are committed to the production of quality drugs as per WHO GMP guidelines. Nepalese doctors are not getting enough motivation in terms of gift and benefit from the national pharmaceutical companies as compared to that offered by the foreign companies.
-) Since, this is the age of marketing, national pharmaceutical companies should use promotional tools more efficiently to motivate and train the medical representatives to impart scientific knowledge to the doctors and present them gift and benefit for their valuable cooperation.
-) The increasing unhealthy competition in the target market may severely hamper domestic pharmaceutical industries. Since the consumer are price sensitive and are unaware of the quality and brand, they are being highly exploited by the confusing substandard brands prevalent in the market as a result of inefficient monitoring system and open border.

-) There is lack of long-term vision in government policy. In fact, there should be more custom duty imposed on the import of finished foreign drugs while less tax imposed on the import of raw materials in order to support domestic pharmaceutical industries. However, the reality is just opposite.
-) Hence it is high time the policies need amendment with the demand of changing time. All the producers unanimously agreed the fact that Nepalese pharmaceutical can certainly attain self-reliance in the essential drugs manufacture.
-) Some producers are even optimistic about bright future of the nation by expanding the export to the foreign market. This needs serious thought from the government especially at the present context, when Nepal is striving to get WTO membership, in order to reap National income from the potential global market by healthy competition in the liberal economy.
-) Thus, the consumer survey indicates that DJPL is the pioneer Nepalese Pharmaceutical Industry in Nepal at this market scenario.
-) Nepalese consumers are observed to be well aware of the importance of doctors' prescription, rational use of drugs and unethical marketing practices by the retailers such as drug substitution. However, they are observed to be price sensitive and unaware of expiry date. Hence due to the unhealthy competitions in Nepalese market, they are often exploited and manipulated by pushing strategy from the retailers.

Hence, consumer awareness of quality, well-reputed brand and expiry date is very important for the prosperity of the Nepalese Pharmaceutical industry.

CHAPTER - III

RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. It facilitates the research work and provides reliability and validity to it. Research methodology employed in this study is presented below.

3.1 Introduction

In this chapter efforts have been made to present and explain the specific research design for the purpose of attaining the research objectives. It includes research design, nature of data, data gathering procedure, population and sample and data processing procedures.

3.2 Research Design

As per the nature of study, survey research design was followed with descriptive and analytical approach.

3.3 Sources of Data

Data are collected from the primary and secondary sources; primary data are collected through questionnaire and personal interview.

3.4 Population and Samples

To accomplish the study effectively, 70 samples are selected from Kathmandu and Biratnagar. Out of the total samples following numbers are selected from the following groups:

Doctors-	20
Chemists-	20
Consumers-	20
Paramedics-	10

3.5 Data Gathering Procedure

The data gathering technique employed in this will be interview and questionnaire survey method. In interview, personal interview will be conducted with the respondents. While in questionnaire survey, self-administered questionnaire survey method will be used to collect primary data with the respondents.

3.6 Data Processing Procedure

Data collected from questionnaires were in raw form. They were classified and tabulated in the required form. Simple arithmetical percentage tools are used for analysis.

CHAPTER - IV

DATA PRESENTATION AND ANALYSIS

4.1 Global Pharmaceutical Scenario

21st century is the age of technological advancement and development. The same is applied in the pharmaceutical industries too. Today pharmaceutical industries is being developed with recent technology and research of new molecule. Pharmaceutical Industry is one of the important and growing industries not only in Nepal but also in the global context. There is a huge competition in pharmaceutical industries. Giant global pharmaceutical companies are putting their paramount efforts to increase their size in terms of sales volume. They are spending lavishly in the research and development of new molecules of drugs for different diseases so as to register patent in that molecule and enjoy monopoly and achieve tremendous amount of sales and profit. The success behind the market leader global companies like Glaxo, Pfizer etc is probably due to towering technological advancement and profuse investment in research activities.

Global pharmaceutical sales volume is continuously increasing since last many years. But as far as the global pharmaceutical market growth trend in recent years is concerned, it is not as encouraging as they were in past years.

Table 4.1
Global Pharmaceutical Sales, 2000- 2007

Year	2000	2001	2002	2003	2004	2005	2006	2007
Total world market(Billion)	\$356	\$390	\$427	\$487	\$549	\$612	\$660	\$710
Growth over last year	10%	10%	9%	14%	13%	11%	8%	7%

Source: IMS report, March '08 issue

We can't deny that the world pharmaceutical market is satisfactory though there is slight decline in the growth in few recent years. In year 2003, the world pharmaceutical market recorded a highest growth ever in the past eight years.

Figure 4.1
Global Pharmaceutical Sales

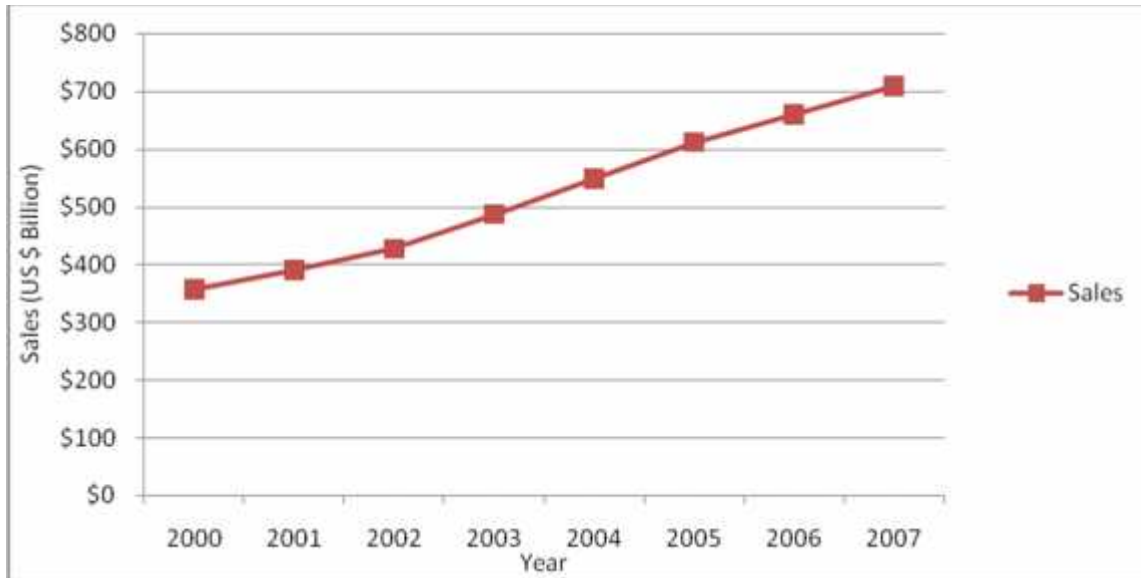
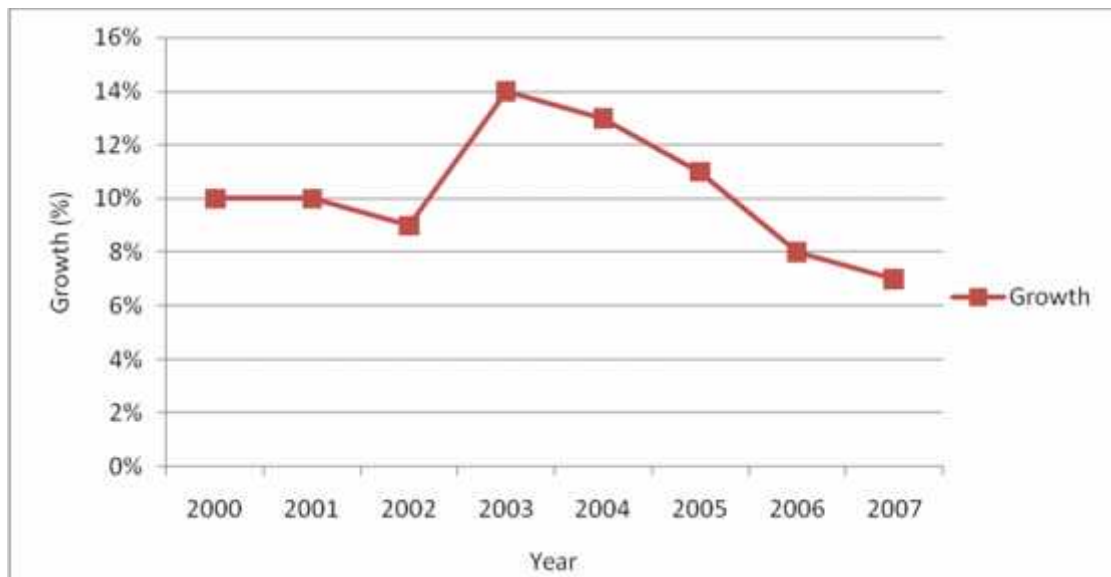


Figure 4.2
Global Pharmaceutical Growth



People suffer from different kind of diseases and on the basis of prevalence of diseases; pharmaceutical companies make drugs to sell it in that market. Different countries have incidence of diverse diseases and it is affected by lifestyle and socio-economic factors. For instance, in developing and least developed countries, frequent occurrence of water-borne diseases, infections, skin diseases etc are seen while in the developed countries, the situation is different. Following table depicts the status of different group of drugs in global market that in turn reflects the predominance of disease in the world.

Table 4.2
Status of Different Group of Drugs in Global Market

S.N.	World Therapy Class	2007Sales(US\$,Billion)	% Share
1.	Cholesterol & Triglyceride Reducers	32.4	5.8
2.	Cytostatics	28.5	5.1
3.	Antiulcerants	26.7	4.8
4.	Antidepressants & Mood Stabilizers	19.8	3.5
5.	Antipsychotics	16.2	2.9
6.	Angiotensin-II Inhibitors	14.2	2.5

Source: IMS report, March'08issue

The above data clearly demonstrate that obesity, cancer, gastritis, depression, blood pressure, psychological problem etc are the most common disease in the world and the medicine for these drugs are sold high. The above data are not relevant in the context of our country as highest group of drug sold in our country is Anti-infective. However, the trend does have impact in determining the local market trend.

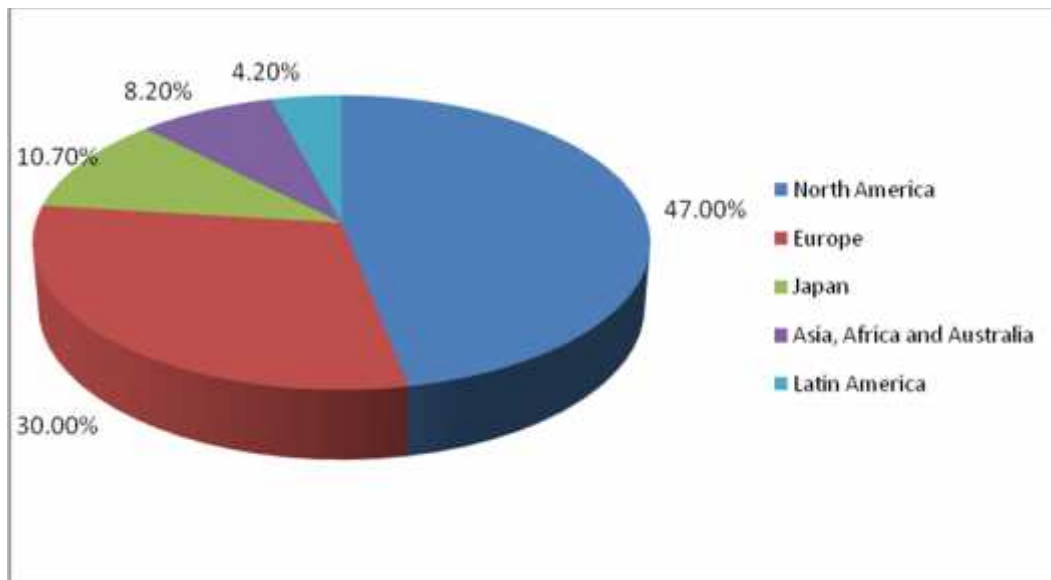
As far as consumption of medicine in different region of the world is concerned, it is quite peculiar. Sales of medicine are highest in North America with least growth while the sale is lowest in Latin America with the highest growth. Japan alone has the sales of medicine which is higher than Asia, Africa and Australia put together. It is to be noted that Asia, Africa and Australia comprise 50% of world population.

Table 4.3
Global Pharmaceutical Sales by Region, 2007

S.N.	World Market	Market Share	Growth
1.	North America	47.0%	5.2%
2.	Europe	30.0%	7.1%
3.	Japan	10.7%	6.8%
4.	Asia, Africa and Australia	8.2%	11.0%
5.	Latin America	4.2%	18.5%
	Total	100.0%	6.99%

Source: IMS report, March'08 issue

Figure 4.3
Global Pharmaceutical Sales by Region, 2007



4.2 Nepalese Pharmaceutical Scenario

4.2.1 Prevalence of Disease in Nepal

Nepal is one of the poorest countries of world. The disease pattern differs from country to country. In the country like ours the diseases due to poor sanitation and contaminated water are very common. It is just reverse in the case of developed

countries where cardiac, cancer, diabetic, psychiatric, psychological etc. problem are widespread.

Table 4.4
Disease Pattern 2005- 2006

Disease	Patient	%	Rank
Skin Disease	1488848	6.07	1
Acquired Respiratory Infection	1069660	4.36	2
Diarrhoeal Disease	949630	3.87	3
Intestinal Worms	669582	2.73	4
Pyrexia of Unknown Origin	585795	2.39	5
Gastritis	583098	2.38	6
Ear Infection	445102	1.82	7
Sore Eye Complaints	423802	1.73	8
Chronic Bronchitis	347144	1.42	9
Abdominal Pain	277399	1.13	10

Source: Health Statistics, Ministry of Health

The above data clearly illustrate that the most common disease in Nepal is Skin diseases and is followed by respiratory disease and diarrhea and similarly other diseases. From this data it can be presumed that poor sanitation, foul drinking water, unhygienic lifestyle are the major contributing factors for dominance of such disease in our country. Pharmaceutical companies should concentrate in producing the effective drug to cure the above listed diseases that will help them to increase their business.

4.2.2 Status of Drug Sales in Nepal

The current Nepalese Pharmaceutical market is worth of Rs. 12,000 million and this volume has come from the sales of different kind of drugs. Anti-infective drugs are the highest contributor of total market. The main reason for the anti-infective sold in such a huge quantity may be due to variety of reasons: a) the most important reason is that the most common diseases like skin, respiratory, and even

diarrhea are due to infections and anti-infectives are used to treat these diseases, b) the anti-infectives are generally costlier as compared to other drugs and c) medical practitioners recommends anti-infective frequently which helps them cure disease even if the main causative factor for the disease is not known. Similarly drug related to alimentary canal and metabolism is the second highest selling group and nutritional drug occupies the third position in the Nepal market. Drug related to cardio-vascular system and central nervous system are also selling high in urban areas as the life in urban area is more hectic and physical exercise is lacking due to facility of different means of transport. The sales of these drug is expected to increase more in the coming years as Nepal market cannot deviate from the global trend.

Table 4.5
Sales Volume and Market Share for Different Drug Group

Figure in '000

Drug Group	Sales Volume	% Market Share
Systemic anti-infectives	2455895	30.6
Alimentary and Metabolism	1765676	22.0
Nutritional	802580	10.0
Respiratory	714296	8.9
Dermatological	553780	6.9
Musculoskeletal system	521677	6.5
Cardiovascular system	401290	5.0
Central Nervous System	321032	4.0
Anti-parasites	288929	3.6
Cytostatic	120387	1.5
Oral anti-diabetics	80258	1.0

Source: IMS report 2007

4.2.3 Present Status of Pharmaceutical Companies in Nepal

Pharmaceutical companies are not much grown-up in Nepal. Still it is considered to be in infant stage in comparison to Indian and Multinationals. The main reason

for not being able to grow much is due to inability to export its products and dependency in limited domestic market. The number of Pharmaceutical companies and its brands are also high in Nepal in connection with its population. This clearly indicates that government has not taken serious steps to safeguard and uplift domestic entrepreneurs.

Table 4.6
Brands per Million Population for Different Countries

Country	Population (Million)	No.of companies	No. of Brands available	Brands per million population
India	1040	18500	252000	242
Bangladesh	150	275	11700	78
Japan	135	360	11400	84
Pakistan	90	316	10600	117
Nepal	25	250	8500	340

Source: DDA, Estimate of 2006

The above table is self- explanatory which reveals that Nepal is the country among above countries where there is a highest competition in pharmaceutical market. This market is not fit for such a fierce competition and it is not good for domestic entrepreneurs, and this needs immediate remedy from government side and from every individual pharmaceutical entrepreneurs. The government has to make some special policies so as to boost up the domestic pharmaceutical industries. The government has to restrict the registration of product of foreign companies which are being already marketed by more than 10 pharmaceutical companies. Also the government should charge high registration cost on registration of foreign products to safe guard and boost up Nepali pharmaceutical companies.

A) Capacity Utilization by Domestic Companies

Table 4.7
Capacity Utilization by Domestic Companies

Description	Installed Capacity	Utilized Capacity	Idle Capacity
Liquid orals (K. Liters)	8500	58.2 %	41.8 %
Tablets (Million units)	850	45.4 %	54.6 %
Capsules (Million units)	700	44.8 %	55.2 %
Ointment(Million units)	15	58.3 %	41.7 %
Average Utilization		51.67 %	48.32 %

Source: H. B. Sharma, MD, Deurali-Janati Pharmaceuticals

It is a matter of surprise that around half of the installed capacity of Nepalese Pharmaceutical companies is idle. This certainly has impact on the cost of the product and ultimately on profit. This is to be noted that out of total Pharmaceutical market Nepalese companies are holding around 32% of market share. Despite having such a huge idle capacity, domestic companies are not able to expand their market share is a weakness in their part, government also has to scrutinize such factor directly responsible for decreasing effectiveness of companies. Had there been opportunity to export the Nepalese drugs, such a problem of idle capacity would not have seen.

B) Domestic Market Trend

Nepali Pharmaceutical market is growing at a constant pace of around 11-16 percent per annum which seems to be satisfactory as compared to global pharma market. Similarly domestic pharma companies are able to hold 32% of total Nepali pharma market. Though there is average of 13 percent growth of domestic market per annum, the market share of Nepalese companies is revolving around the same figure since last many years. There is a severe internal rivalry between the domestic companies as most of them have similar kinds of products.

Table 4.8
Domestic Market Trend

Year	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007
Total Pharma Sales of Nepal (NRS, Million)	7212	8077	9180	10658	12225
Growth (%)	11	12	13.6	16	14

Source: DDA

Figure 4.4
Domestic Market Trend

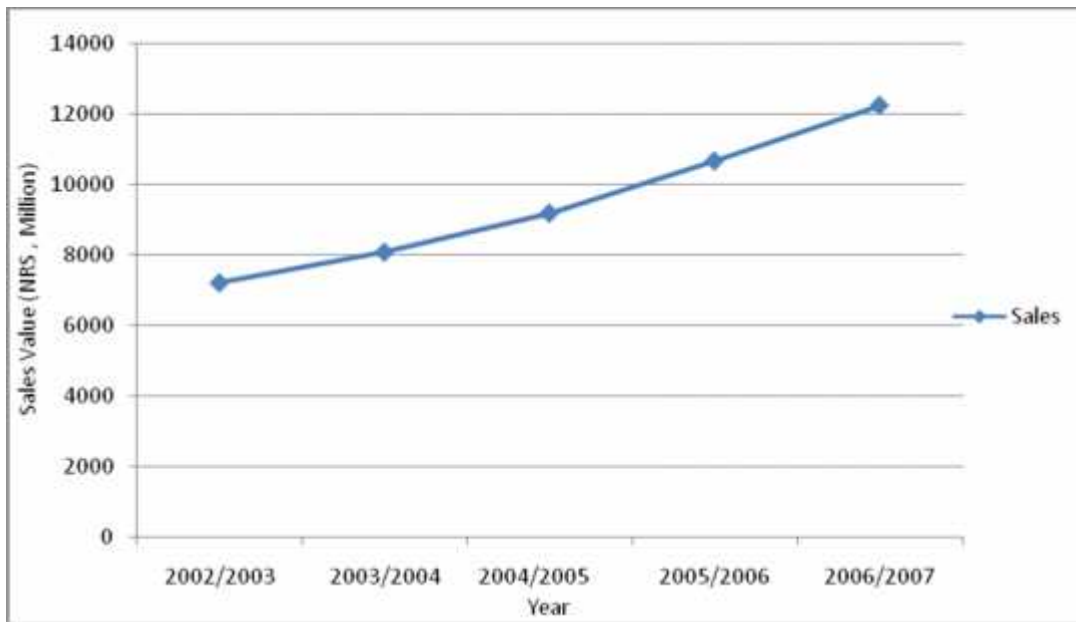


Table 4.9
Top ten Nepalese Companies in 2005

S.N.	Name of the companies	Market Share (%)
1.	Nepal Pharmaceutical Lab	3.9
2.	Lomus Pharmaceuticals	3.5
3.	Deurali- Janata Pharmaceuticals	3.1
4.	National Health Care	2.5
5.	G. D. Pharmaceuticals	1.2
6.	Royal Drugs Laboratories	1.1
7.	Apex Pharmaceuticals	0.9
8.	Asian Pharmaceuticals	0.9
9.	CTL Pharmaceuticals	0.9
10.	Simca laboratories	0.8

Table 4.10
Top ten Nepalese Companies in 2006

S.N.	Name of the companies	Market Share (%)
1.	Lomus Pharmaceuticals	4.6
2.	Nepal Pharmaceutical Lab	4.2
3.	Deurali- Janata Pharmaceuticals	3.9
4.	National Health Care	3.0
5.	G. D. Pharmaceuticals	1.4
6.	Asian Pharmaceuticals	1.1
7.	Apex Pharmaceuticals	1.05
8.	Simca Laboratories	1.0
9.	Time Pharmaceuticals	0.9
10.	Curex Pharmaceuticals	0.8

Table 4.11
Top ten Nepalese Companies in 2007

S.N.	Name of the Companies	Market Share (%)
1.	National Health care	4.7
2.	Nepal Pharmaceutical Lab	4.3
3.	Lomus Pharmaceuticals	3.9
4.	Deurali- Janata Pharmaceuticals	3.3
5.	Asian Pharmaceuticals	2.0
6.	Time Pharmaceuticals	1.5
7.	G. D. Pharmaceuticals	1.3
8.	Apex Pharmaceuticals	0.9
9.	Curex Pharmaceuticals	0.8
10.	Simca Laboratories	0.7

C) Market Share Distribution

Many fighters are struggling in this tiny Nepali pharmaceutical market with their utmost efforts. Nepalese companies do not have any option rather than combating in their own country, many of the Indian companies are also very aggressively operating here. Not only that few companies originating from Bangladesh are also vigorously marketing here and their number in Nepal is also increasing continuously. Importers of medicines play a crucial role in establishing the business of outsider companies in Nepal. Some importer's turnover is greater than many Nepalese companies and they are very powerful and can influence the different drug related government authorities which facilitates increase in business of outsider companies. Importers are always tend to expand their business by attracting more and more foreign companies which is causing rise in competition to a greater extent.

Nepalese pharmaceutical market is running with an average growth of 11-16 % per annum but the market share of domestic companies have not increased much in last many years. It means that Indian and other foreign companies are also equally aggressive and growing with similar growth rate as grown by domestic companies. The current market share of domestic, Indian and other third country companies are 32%, 65% and 3% respectively. While in the year 2002, the market share distribution scenario was domestic- 26%, Indian -72% and other- 2%.

There is not significant rise in market share of Nepalese Pharmaceutical companies in last five years and unless and until Nepalese companies occupy 50% of market share, their future will not be worthy and secured.

Figure 4.5
Market Share (Year 2002)

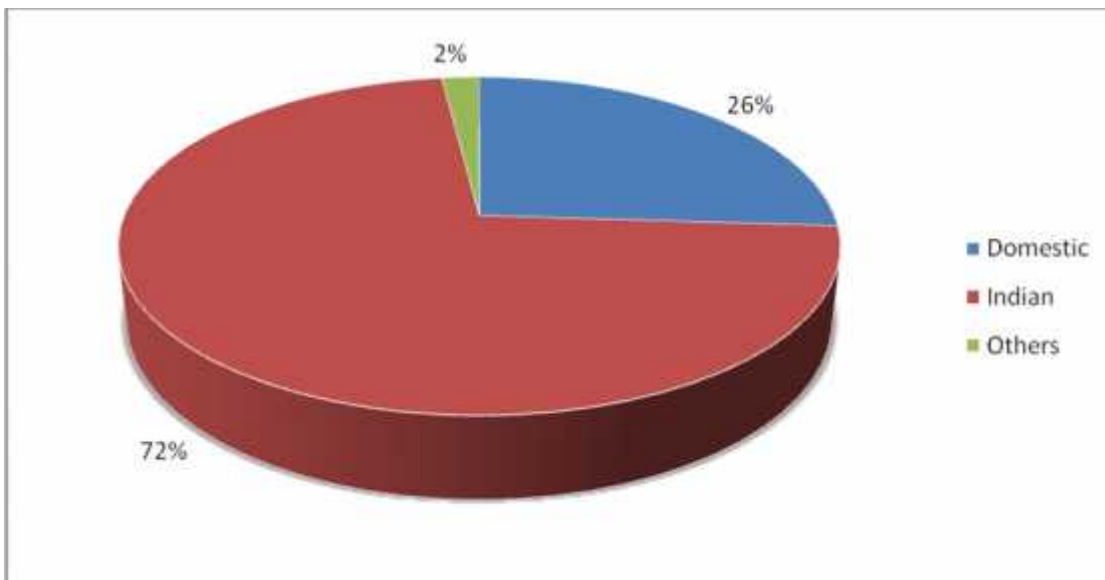
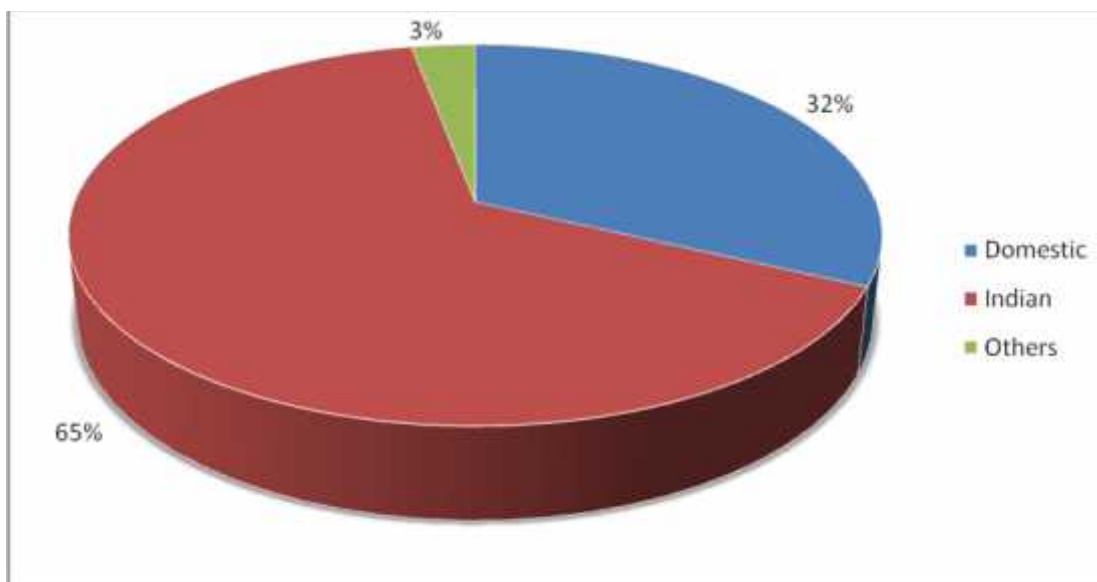


Figure 4.6
Market Share (Year 2007)



4.3 Presentation and Analysis of Primary Information

To make research more reliable, analytical, informative and challenging, primary information plays a vital role. So, in this case study of market share analysis of pharmaceuticals companies, the researcher has put efforts to analyze the primary data as obtained from the questionnaire distributed to doctors, chemist and consumers. The proforma of questionnaire attempts to analyze important aspects of market share analysis of Nepalese, Indian and other foreign companies which includes the degree of preference of Nepalese drugs by doctors, chemist, consumers and paramedics; view of doctor, chemist consumers and paramedics regarding quality of medicines produced by Nepalese companies; factors that affects to prefer particular brand of medicine; promotional activities preferred etc.

4.3.1 Result of Questionnaire Distributed to Doctor

Table 4.12
Result of Questionnaire Distributed to Doctor

Response Q.N.	a	b	c	d
1.	8 (40%)	0 (0%)	2 (10%)	10 (50%)
2.	2 (10%)	4 (20%)	0 (0%)	14 (70%)
3.	4 (20%)	10 (50%)	4 (20%)	2 (10%)
4.	4 (20%)	1 (5%)	1 (5%)	14 (70%)
5.	2 (10%)	1 (5%)	7 (35%)	10 (50%)
6.	0 (0%)	16 (80%)	4 (20%)	0 (0%)
7.	4 (20%)	4 (20%)	8 (40%)	4 (20%)
8.	4 (20%)	2 (10%)	13 (65%)	1 (5%)
9.	8 (40%)	4 (20%)	6 (30%)	2 (10%)
10.	8 (40%)	8 (40%)	4 (20%)	0 (0%)

Above data are based on ten questions asked to the different doctors of Kathmandu valley and Biratnagar. The figure refers to the no. of responses over total and percentage of responses.

Q.N.1 Most of the doctors believe that Nepalese Pharma companies produce good quality of medicine.

Q.N.2 Majority of doctors prescribes any kind of drug produced by Nepalese companies.

Q.N.3 Refer to Appendix I for the calculation of Mean of Q. no. 3. The mean percentage prescription support of Doctor towards Nepalese companies is 42.5 %.

Q.N.4 Quality, Price and Promotion are all important factor to prescribe a particular brand of medicine

- Q.N.5 Many doctors want to prescribe those Indian drugs which are not available with Nepalese companies and many of them also want to see the quality and promotion activities of these Indian companies.
- Q.N.6 Majority of doctors believes that chemists are substituting the doctor's prescription sometimes only.
- Q.N.7 Doctors are less bothered by substitution done by chemist as some are serious and some are not on the substitution issue.
- Q.N.8 Majority of doctors prefer distribution of literatures and journals by pharmaceutical companies as promotional activities.
- Q.N.9 Visits of Medical Representative do have impact to change prescription habit of doctor.
- Q.N.10 Doctors think that Nepalese companies should improve quality, reduce price and also increase promotional activities to get support from doctors and no any doctor is bothered about WHO- GMP certificate of Nepalese companies.

4.3.2 Result of Questionnaire Distributed to Chemist/Dealers

Table 4.13

Result of Questionnaire Distributed to Chemist/Dealers

Response Q.N.	a	b	c	d
1.	18 (90%)	0 (0%)	0 (0%)	2(10%)
2.	4 (20%)	2 (10%)	0 (0%)	14 (70%)
3.	0 (0%)	0 (0%)	12 (60%)	8 (40%)
4.	2 (10%)	14 (70%)	4 (20%)	0 (0%)
5.	8 (40%)	0 (0%)	2 (10%)	10 (50%)
6.	2 (10%)	10 (50%)	6 (30%)	2 (10%)
7.	2 (10%)	4 (20%)	4 (20%)	10 (50%)
8.	10 (50%)	2 (10%)	7 (35%)	1 (5%)

Above data are based on eight questions asked to the different chemist and dealers of Kathmandu valley and Biratnagar. The figure refers to the no. of responses over total and percentage of responses.

Q.N.1 Almost all the drugs sold from chemist shop are through doctors' prescription. This finding is valid in urban areas but in rural areas paramedics recommend and sell medicine generally through their own shop.

Q.N.2 Majority of the chemist doesn't have any problem to sell any medicine produced from any country.

Q.N.3 Chemists agree that they substitute the doctors' prescription but in special case and with the consent of doctor only.

Q.N.4 Majority of the chemist has 25-50% of Nepali medicines' stock.

Q.N.5 Chemists believe that Nepali medicines are of good quality.

Q.N.6 Refer to Appendix II for the calculation of Mean of Q. no. 6. The mean percentage demand of Nepali medicine from the chemist shop is 47.5 %.

Q.N.7 Quality, bonus/ schemes and regular visit of sales representative are all important factors for the chemist to sell Nepali medicine.

Q.N.8 Most of the chemist suggest that Nepalese companies should generate more prescription from doctors and give regular schemes in the product to the chemist for increasing their business.

4.3.3 Result of Questionnaire Distributed to Consumers

Table 4.13
Result of Questionnaire Distributed to Consumers

Response Q.N.	a	b	c	d
1.	16 (80%)	0 (0%)	0 (0%)	4(20%)
2.	18 (90%)	2 (10%)	0 (0%)	0 (0%)
3.	4 (20%)	6 (30%)	6 (30%)	4 (20%)
4.	5 (25%)	0 (0%)	4 (20%)	11 (55%)
5.	2(10%)	4 (20%)	10 (50%)	4 (20%)
6.	4 (20%)	4 (20%)	10 (50%)	2 (10%)
7.	0 (0%)	16 (80%)	4 (20%)	0 (0%)
8.	2 (10%)	2 (10%)	12 (60%)	4 (20%)

Above data are based on eight questions asked to the different consumers of Kathmandu and Biratnagar. The figure refers to the no. of responses over total and percentage of responses.

Q.N.1 Majority of the consumer purchase medicine through doctor's prescription in Kathmandu valley and Biratnagar.

Q.N.2 Majority of the consumer purchase common items like pain killers, vitamins etc from chemist without consulting doctors.

Q.N.3 Almost all medicines have equal preference from consumers.

Q.N.4 Consumers of Kathmandu valley have faith on Nepali medicine.

Q.N.5 Generally, consumers don't check whether the doctor's prescription is substituted by chemist.

Q.N.6 Generally, consumers don't check the expiry date of medicine at the time of buying it.

Q.N.7 Consumers generally do not ask for the cheaper medicine and do not bargain also.

Q.N.8 Most of the consumers are not going to accept the prescription to be substituted with Nepali brand unless in special case.

4.3.4 Result of Questionnaire Distributed to Paramedics

Table 4.14
Result of Questionnaire Distributed to Paramedics

Response Q.N.	a	b	c	d
1.	10 (100%)	0 (0%)	–	–
2.	3 (30%)	7 (70%)	0 (0%)	0 (0%)
3.	2 (20%)	2 (20%)	0 (0%)	6 (60%)
4.	2(20%)	4 (40%)	1 (10%)	3 (30%)
5.	5(50%)	3(30%)	1 (10%)	1 (10%)
6.	2 (20%)	2 (20%)	2 (20%)	4 (40%)
7.	8 (80%)	2 (20%)	–	–
8.	0 (0%)	3 (30%)	7 (70%)	0 (0%)

Above data are based on eight questions asked to the different Paramedics of Kathmandu valley and Biratnagar. The figure refers to the no. of responses over total and percentage of responses.

Q.N.1 All the paramedics are given authority to prescribe the medicine by the government.

Q.N.2 Majority of the Paramedics handle general and accidental cases. None of them handle complex and severe cases.

Q.N.3 Most of the paramedics prefer nepali and Indian both medicine.

Q.N.4 Most of the Paramedics prescribe common and few advanced Nepali drug.

Q.N.5 Vitamins of Nepali companies are mostly prescribed and than painkillers.

Q.N.6 Majority of the Paramedics prescribed medicine on the basis of quality, price and promotion.

Q.N.7 Generally Paramedics dispense the medicine from their own chemist shop.

Q.N.8. Refer to Appendix III for the calculation of mean of Q.no.8.The mean percentage sales of Nepali medicine from the counter of Paramedics is 55 %.

4.4 Major Findings

The findings which revealed through this study are as follows:

1. The global pharmaceutical market is continuously growing and cholesterol lowering agents, cancer drugs, anti-ulcer drugs etc. are sold high in the global market. While in Nepal anti- infective drugs are sold high because of poor sanitation and contaminated drinking water. However the global market trend does have impact in determining the local market trend.
2. Health care service in Nepal is very poor as compared to developed countries. In Nepal prevalence of skin diseases, respiratory diseases, diarrhoeal diseases, intestinal worm infestation etc are most common. Unhygienic lifestyle is the major contributing factors for dominance of such diseases in our country.
3. Nepalese pharmaceutical industry is in infant stage and it needs to be protected from foreigner intruders. And at the same time, Nepal is also facing the problem of over competition in comparison to neighboring countries which is evidenced by high brand per million population ratio.
4. Nepalese pharmaceutical companies have to survive in their own domestic market due to inability to export their production to foreign countries. Moreover, only fifty percent of the total installed capacity of domestic companies have been utilized and the rest half is idle which is leading to rise in cost of production.
5. Imported drugs are subject to five percent custom duty. Imported raw materials are subject to one percent custom duty. But while importing packaging materials, laboratory chemicals and equipments, domestic

- companies have to pay five percent custom duty, two percent surcharge and thirteen percent vat.
6. As there is open market system in Nepal, it is very easy for Indian companies to extend its market here. However, it is very difficult to export Nepalese drugs to the Indian market because of so many obstacles. It requires long formality processes, added cost in different heads and high registration fees.
 7. Nepalese pharmaceutical market is growing with an average of around 13 percent per annum and share of domestic companies is something around thirty percent. The domestic market share has not gone up much as it is lying in the same line in last couple of years. However, Nepalese companies have lot of opportunities to increase their market share in days to come.
 8. Doctors/Chemist/Consumers of Nepal believe that the Nepalese Pharma companies produce good quality of medicines and Doctors have no any constraints to prescribe any kind of drug produced by domestic companies. Such kind of faith of medical practitioners will give further mileage to the domestic pharmaceutical entrepreneurs.
 9. It has been seen that the majority of the medical practitioners prefer to prescribe only those foreign brands of medicine which is not available with domestic companies. Though it is very encouraging information, domestic companies are not able to manufacture advanced drugs due to technological problem and dependency in local market.
 10. Chemist and Dealers do favor domestic companies and keep their enough stock as they get lucrative benefits from these companies.
 11. Local consumers do not check whether the doctor's prescription is substituted or not. This is due to lack of education and chemist may take undue advantage by substituting doctor's prescription with substandard drug for earning high profit margin.

12. Local consumers generally do not check expiry dates of medicine while purchasing it. This is also due to lack of education. This may lead to serious health hazard also.
13. Generally, Paramedics are more in the rural area than in the urban area. About 80% of the Paramedics have their own chemist shop and they sell about 55% of the Nepali medicine from their counter.

CHAPTER – V

SUMMARY, CONCLUSION & RECOMMENDATIONS

5.1 Summary

The brief introduction of the pharmaceutical industry, its role, importance & contribution in Nepal are presented in the introductory chapter. The second chapters i.e. review of literature gives the concept of marketing and its different aspects where different views of different resource scholars, writers are reviewed. The journals and articles published by different management experts are also reviewed. Similarly, the available dissertations in context of pharmaceutical industry from various researchers are also reviewed. The appropriate research methodology is presented in chapter three. With the help of methodology described, the data are presented and analyzed in chapter four. Now, in this chapter an effort has been made to present to give conclusion and some suggestion for future course of action.

The basic objective of this study is to analyze the market share of different companies originating from different countries. To accomplish the objective set earlier in first chapter, the necessary data from secondary and primary sources are collected from Department of Drug Administration, IMS Data report, different journals and publications and questionnaires distributed to Doctors, Chemists and consumers. The secondary and primary data are analyzed through simple statistical tools like average, percentage, mean etc.

5.2 Conclusion

In conclusion, Nepalese pharmaceutical companies have lots of space to grow in their own domestic market by substituting the import form foreign countries that in turn, will help to generate more and more employment opportunities in our

country. This will also minimize the migration of young manpower to the foreign countries in search of employment.

5.3 Recommendations

Industries are the back bone of country's economy. The Pharmaceutical industry is one of the profits yielding industry in present context. Since health is the most important part of our life and medicines are very sensitive issue, domestic pharmaceutical companies need to be strengthened in terms of quality and marketing strategy as it is contributing to national economy also. Therefore, government, entrepreneurs, doctors, consumers, retailers and all the stakeholders of this industry should take the concern in protecting and promoting domestic companies from their own part.

Considering the marketing problems and prospects associated with this industry, the following suggestion has been presented that may be helpful for the industry to go ahead in a fast track in forthcoming days.

-) Domestic Pharmaceutical business houses need more support form government in priority as health is a vital part of life. Precise import and export policy should be prepared and executed in an integrated manner to develop local companies to initiate export activities and substitute import of foreign drugs to a greater extent.
-) Government should formulate proper policies to attract foreign direct investment in this sector to make the domestic products recognized in foreign market which will help to open the window for exporting domestic production.
-) A high level of defense of domestic industry is essential to increase and improve the country's productivity and launching import substitution effectively. In order to protect the domestic industries and manufacturers, strong tariff and non-tariff barrier should be imposed on imported finished

drugs. Especially these barriers should be enforced in those common finished products which is produced in abundance in own country.

- J Protection of domestic entrepreneurs can be worked out by imposing quantitative restriction on imported items, minimizing custom duties for importing packaging materials, laboratory chemicals and equipments.
- J The drug regulatory authority should monitor and control both legal and illegal entry of substandard drugs thorough the porous border.
- J The government should give the stringent deadline for getting WHO-GMP certificate to all the national companies so as to ensure the supply of best quality drugs in the market.
- J The government should provide facilities, incentives, tax exemptions, soft loans etc to fortify this sector as these private sector play dominant role to boost up the country's economy.
- J Emphasis should also be given for technology transfer by importing latest technology for manufacturing and quality assurances as well as to develop technologically advanced drugs to meet the international standard.
- J The government should pay serious attention to protect rare medicinal herbs found in Nepal and should promote commercial cultivation of raw materials within the country in order to save national expenditure on the import of raw materials from the foreign countries.
- J Department of Drug Administration should work towards discouraging unethical market promotion by spreading false and illusive advertisement about any drug.
- J Domestic companies should develop a competent marketing team and their Sales Representative should be properly trained so that they can convey the scientific information to the doctors allowing them to choose appropriate drug for their patient.

J) Public awareness program should be carried out so that the people can fight for their right which will minimize the unethical practice prevailing in this sector.

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Appendix - I

% Prescription from Doctors	No. of Doctors (f)	Mid-Value (x)	fx
0-25	4	12.5	50
25-50	10	37.5	375
50-75	4	62.5	250
75-100	2	87.5	175
Total	20		850

$$\text{Arithmetic mean } \bar{X} = \frac{\sum fx}{N} = \frac{850}{20} = 42.5$$

Appendix - II

% demand from chemist shop	No. of Chemist (f)	Mid-Value (x)	fx
0-25	2	12.5	25
25-50	10	37.5	375
50-75	6	62.5	375
75-100	2	87.5	175
Total	20		950

$$\text{Arithmetic mean } \bar{X} = \frac{\sum fx}{N} = \frac{950}{20} = 47.5$$

Appendix - III

% Sales of Nepali Medicine	No. of Paramedics (f)	Mid-Value (x)	Fx
0-25	0	12.5	0

25-50	3	37.5	112.5
50-75	7	62.5	437.5
75-100	0	87.5	0
Total	10		550

Arithmetic mean $\bar{X} = \frac{\sum fx}{N} = \frac{550}{10} = 55$

QUESTIONNAIRE FOR DOCTORS

This questionnaire is prepared with a view to conduct research for the partial fulfillment of the requirement for the degree of Master of Business Studies. So your kind cooperation is expected by giving exact answer of the following questions. The answer will be kept confidential.

Name of the respondent:

Please tick the best alternative amongst the available answers.

1. Do you think that Nepali Pharmaceutical companies produce good quality of medicines?
 - a) Yes
 - b) No
 - c) Few of them produce good quality medicines
 - d) Most of them produce good quality medicines

2. What kind of Nepali medicine do you prefer to prescribe?
 - a) Common drugs
 - b) Common and few advanced drugs
 - c) Advanced drugs only
 - d) Any of the drugs.

3. What percent of your prescription generally contains Nepali medicines?
- a) 0 – 25 %
 - b) 25 – 50 %
 - c) 50 – 75 %
 - d) 75 – 100 %
4. Which is the most important factor to prescribe a particular brand of medicine?
- a) Quality
 - b) Price
 - c) Promotion
 - d) All of the above
5. What makes you prescribe Indian drugs?
- a) Quality
 - b) Good promotion
 - c) Not available with Nepalese companies
 - d) All of the above
6. How often do you find the chemists are substituting your prescription?
- a) Always
 - b) Sometimes
 - c) Most of the times
 - d) Never
7. Do you accept if the chemists substitute your prescription?
- a) Yes
 - b) No
 - c) Sometimes
 - d) In special case only

8. What kind of promotional activities by pharma companies do you prefer?
- a) Regular brand reminding visit
 - b) Scientific information
 - c) Litretures and journals
 - d) CME sponsorship
9. Do you change your prescription habit as per the visit of Medical Representative?
- a) Yes
 - b) No
 - c) Sometimes
 - d) Quite often
10. What should Nepalese company do to increase their support from Doctors?
- a) Improve quality
 - b) Reduce price
 - c) Increase promotional activities
 - d) Get WHO - GMP Certificate.

Thank You !

QUESTIONNAIRE FOR CHEMISTS

This questionnaire is prepared with a view to conduct research for the partial fulfillment of the requirement for the degree of Master of Business Studies. So your kind cooperation is expected by giving exact answer of the following questions. The answer will be kept confidential.

Name of the respondent:

Please tick the best alternative amongst the available answers.

1. How do you sell the medicines mostly?

- | | |
|-----------------|------------|
| a) Prescription | b) Pushing |
| c) OTC | d) Others |

2. Which of the following medicine do you prefer to sell?

- | | |
|------------|-------------------|
| a) Nepali | b) Indian |
| c) Foreign | d) No preference. |

3. How often do you substitute the doctor's prescription?

- | | |
|---------------------------|-------------------------------|
| a) Never | b) Regularly |
| c) Rare, in special case. | d) By asking with the doctor. |

4. What percent of your total stock contains Nepali medicine?
- a) 0 – 25 % b) 25 – 50 % c) 50 – 75 % d) 75 – 100 %
5. Do you think Nepali medicines have good quality?
- a) Yes b) No
- c) Only few have good quality d) Majority have good quality
6. How is the demand of Nepali medicine?
- a) 0 – 25 % b) 25 – 50 % c) 50 – 75 % d) 75 – 100 %
7. What factor motivates you to sell Nepali medicine?
- a) Quality b) Bonus/ Schemes
- c) Regular visit of Sales Representative d) All of the above.
8. In your opinion, what should Nepalese companies do to increase their business?
- a) Generate more prescriptions from doctors. b) Increase bonus in the product
- c) Regular schemes in the product d) Increase credit days

Thank You !

QUESTIONNAIRE FOR CONSUMERS

This questionnaire is prepared with a view to conduct research for the partial fulfillment of the requirement for the degree of Master of Business Studies. So your kind cooperation is expected by giving exact answer of the following questions. The answer will be kept confidential.

Name of the respondent:

Please tick the best alternative amongst the available answers.

1. How do you generally purchase medicines?

- a) As per the doctor's prescription b) As per the suggestion from chemist
- c) As per the self decision d) All of the above

2. What kind of medicine do you purchase without consulting doctor or in absence of doctor?

- a) Common items like pain killers, vitamins etc b) Antibiotics
- c) Cardiac drugs d) All of the above

3. From which country, the medicine produced is most preferable to you?

- a) Nepal b) India
- c) Third country d) Any of the above.

4. Do you have confidence in Nepali medicines?

- a) Yes b) No
- c) In few Nepali medicines d) In majority of Nepali medicines

5. Do you check whether the doctor's prescription is substituted by chemist or not.

- a) Yes
- b) No
- c) Sometimes
- d) Most of the times

6. Do you check the expiry date of medicine at the time of buying it?

- a) Yes
- b) No
- c) Sometimes
- d) Do not check due to faith with the chemist

7. Do you ask chemist for cheaper medicine?

- a) Yes
- b) No
- c) Sometimes
- d) Most of the times

8. Do you accept if chemists replace the doctor's prescription with a Nepali brand?

- a) Yes
- b) No
- c) In special case
- d) Accept if convinced by chemist

Thank You !

QUESTIONNAIRE FOR PARAMEDICS

This questionnaire is prepared with a view to conduct research for the partial fulfillment of the requirement for the degree of Master of Business Studies. So your kind cooperation is expected by giving exact answer of the following questions. The answer will be kept confidential.

Name of the respondent:

Please tick the best alternative amongst the available answers.

1. Has government given you authority to prescribe medicine?

a) Yes

b) No

2. What kind of cases do you generally handle?

a) General cases b) General and accidental cases

c) Complex cases d) Severe cases

3. From which country, the medicine produced is most preferable to you?

a) Nepal

b) India

c) Third country

d) Nepal and India both

4. What kind of Nepali medicine do you prescribe?

a) Common drug

b) Common and few advanced drug

c) Advance drug

d) Nepali and Indian both

5. Which group of Nepali medicine do you prefer?

a) Vitamins

b) Pain killers

c) Antibiotics

d) Others

6. On which basic do you prescribe medicine?

a) Quality

b) Price

c) Promotion

d) All of above

7. Do you have your own chemist shop?

a) Yes

b) No

8. What percentage of Nepalese medicine is sold from your counter?

a) 0-25%

b) 25-50%

c) 50-75%

d) 75-100

Thank You !