Summer Training
At
MICROLABS

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A Report
by

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MBA in Pharmaceutical Management 2020-22

AKNOWLEDGMENT

I would like to express my special thanks of gratitude to my mentor **Sir Tavinder Jit Singh** , the organisation **MICROLABS**, as well as our hounorable faculty and guide **Sir Sandeep Narula**, who gave me this golden opportunity to do this wonderful internship on the Branding and Marketing, which also help me in doing a lot of research and I came to know about so many new things.

I would like to extend my heartfelt thanks to my mentor **Sir Rahul Sharma** for hleping me a lot to complete my internship. Without his guidance and support I would not able to do my internship.

I consider myself as lucky individual as I got such a good mentors and great opportunity of learning and be a part of this internship.

I am really thankful to them.

Secondly I would also like to thanks my parents and friends who helped me a lot in finishing this internship within the limited time.

I am doing this internship not only for marks but to also increase my knowledge thanks again to all who helped me.

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OBSERVATIONAL LEARNING

ABOUT MICRO LABS

Micro Labs Limited is a multi-faceted healthcare organization with a proficient marketing team, state-of-the-art manufacturing facilities and R&D centres that are at par with international standards. All this, robustly backed by a strong distribution network and path-breaking research work has placed us amongst India's fast growing transnational healthcare organizations.

The company is also at the forefront in social contribution, striving to be a model corporate citizen in terms of Environmental Protection & Social Initiatives with significant contributions in the areas of education and health. Micro Labs is poised to achieve unparalleled status in the global pharmaceutical industry. Backed by a profound and resolute vision.

MODE OF DATA COLLECTION

Data is being collected form the internet, from various sites and research paper.

Since Pandemic was at its worst, I couldn't go outside and takr the survey for my project.

Therefore I was unable to conduct the field work for my project.

GENERAL FINDINGS ON LEARNING

In this due course of time, during my 2 months internship program I learnt so many new things.

The department alloted to me was Marketing.

In which I learnt about

About the new molecule named apixaba

Pharmacology of apixaban

Marketing strategies

How to make leave behind literature

About branding

Trademarks

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Conclusion

PROJECT REPORT

INTRODUCTION

About APIXABAN

Apixaban is a type of medicine known as an anticoagulant, or blood thinner.
It makes your blood flow through your veins more easily. This means your blood will be less likely to make a dangerous blood clot.
It's used to treat people who have had a health problem caused by a blood clot, such as:

- A stroke
- A heart attack
- A blood clot in the leg (deep vein thrombosis, or dvt)
- A blood clot in the lungs (pulmonary embolism)

It's also used to prevent blood clots if you're at high risk of having them in the future. People who are at high risk include those who:

- have an abnormal heartbeat (atrial fibrillation)
- have recently had surgery to replace a hip or knee joint

Apixaban is only available on prescription. It comes as tablets.

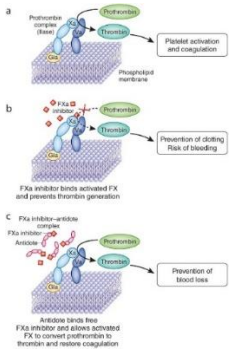
APIXABAN

- It comes under the brand name ELIQUIS, marketed by **Bristol-Myers Squibb and Pfizer.**

MY BRAND NAME IS ANNCOAG-SR, WHICH CONSTITUTES APIXABAN AS A MAIN CONTENT.

Mechanism of action

- APIXABAN inhibits free and clot-bound factor Xa, and prothrombinase activity. APIXABAN has no direct effects on platelet aggregation, but indirectly inhibits platelet aggregation induced by thrombin. By inhibiting factor Xa, APIXABAN prevents thrombin generation and thrombus development.



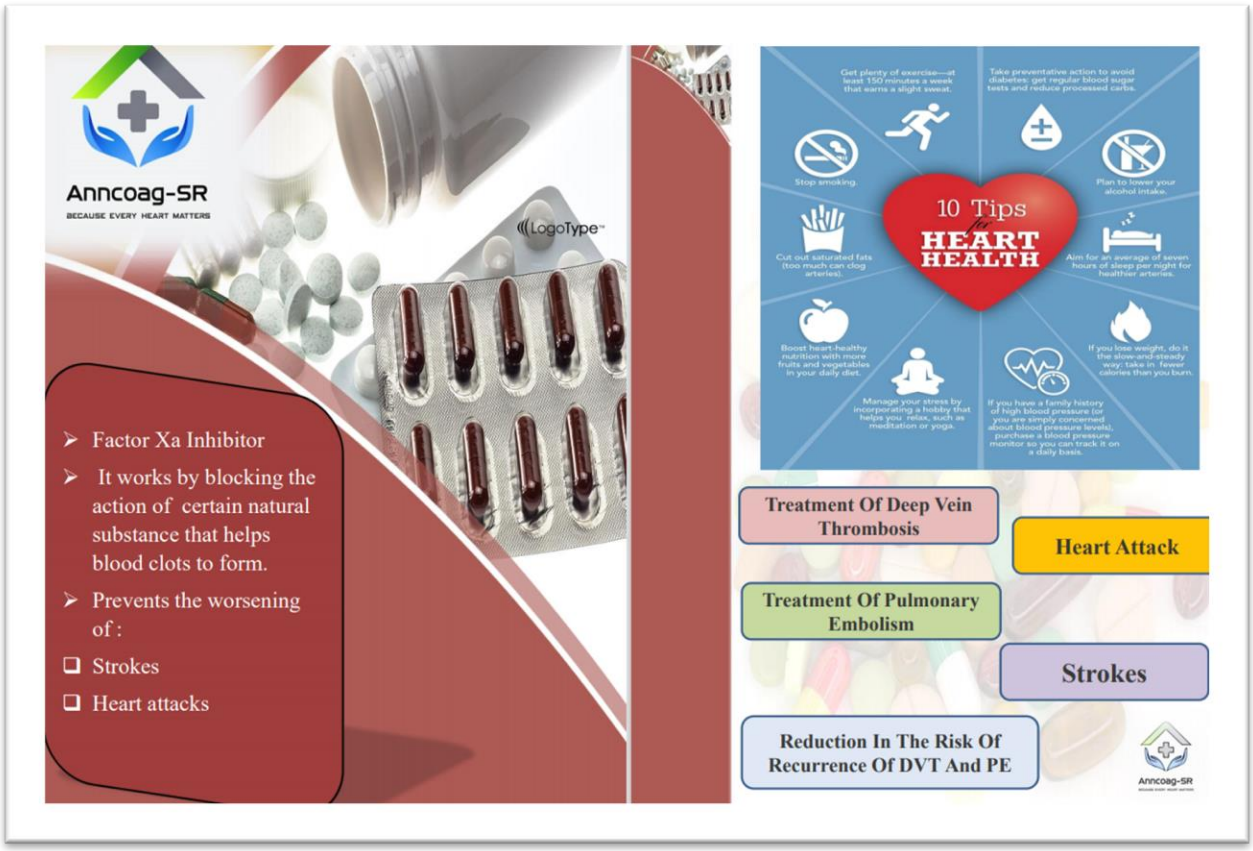
SIDE EFFECTS

- Like all medicines, apixaban can cause side effects, although not everyone gets them.
- The most common side effect is bleeding more easily than normal, such as having nosebleeds, heavier periods, bleeding gums and bruising.
- Very rarely, apixaban can lead to bleeding in the brain.
- This can cause a very severe headache, fits (seizures), changes to your eyesight, numbness or tingling in your arms or legs, and make you feel very tired, weak or sick.
- If you suddenly get any of these symptoms, contact your doctor immediately. This is an emergency.
- Other common side effects
- These common side effects happen in more than 1 in 100 people.
- They're usually mild and do not last long,
- tiredness and lack of energy, shortness of breath, noticeable heartbeats (heart palpitations) and pale skin – these can be signs of anaemia
- feeling dizzy or lightheaded
- a mild rash
- feeling sick (nausea)

Key facts

- It's usual to take apixaban twice a day.
- You can take apixaban with or without food.
- The most common side effect of apixaban is bleeding more easily than normal, such as having nosebleeds, heavier periods, bleeding gums and bruising. It tends to happen in the first few weeks of treatment or if you're unwell.
- Always carry your anticoagulant alert card with you. Show it to your doctor or dentist before you have surgery or dental treatment. It's important they know you're taking apixaban, as it may put you at risk of bleeding.

LEAVE BEHIND LITERATURE



PHARMACOKINETICS

Absorption

- Oral bioavailability is 50%
- Apixaban comes in tablet form and is absorbed through gastrointestinal tract
- Majority of absorption occurs in distal small intestine and ascending colon.
- Absorption is not affected by food
- It is given bid (twice a day)
- Maximum plasma concentration is within 3 to 4 hours.

Distribution

Apixaban gets approximately 87% bound to plasma proteins.

Metabolism

Unchanged apixaban key is the only active drug.

Apixaban does not have any active metabolites 25% of oral administered undergoes metabolism.
Major enzymes involved in the metabolism of apixaban is CYP3A4.

Excretion

It is excreted in urine and faeces.
27% of total elimination involves renal clearance.

Half life

$T^{1/2}$ is ~5 hours on intravenous injections but apparent $t^{1/2}$ is ~12 hours on oral administration.

Dosage

Your dose of apixaban depends on why you're taking it:

- For people with a heart problem called atrial fibrillation – the usual dose is one 5mg tablet, taken twice a day. But your doctor may prescribe a lower dose of one 2.5mg tablet twice a day if you're over 80 years old, weigh less than 60kg (9st 6lb), or have kidney disease and are at a higher risk of bleeding.

- For people who have recently had a blood clot – if you have had a blood clot within the last 6 months, the usual dose is two 5mg tablets, taken twice a day, for the first 7 days. After that, you'll take one 5mg tablet twice a day.
- For people taking it to reduce the risk of a future blood clot – if you had a blood clot more than 6 months ago, the usual dose is one 2.5mg tablet, taken twice a day.

- For people who have had a hip or knee replacement – the usual dose is one 2.5mg tablet, taken twice a day, you'll usually take your first dose 12 to 24 hours after surgery.

Marketing Strategies

1. Mobile Applications

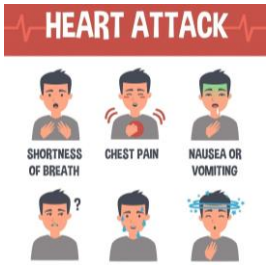
DOCTORS PATIENTS SALES FORCE RETAILERS

2. E-mail Marketing

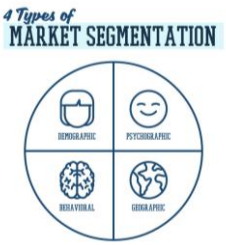
Content marketing through emails to doctors. Content of emails can be-

3. Website Development

Product Information



Indication and symptoms



Information about product

Dosage

Safety Information

Chat Box

Promotion of Apps

Market Analysis

The cardiovascular disease market, which includes Hypertension, Dyslipidaemia, Thrombotic events, has been grow from $129.2 billion in 2015 to $146.4 billion by 2022, at a very modest compound annual growth rate of 1.8%.

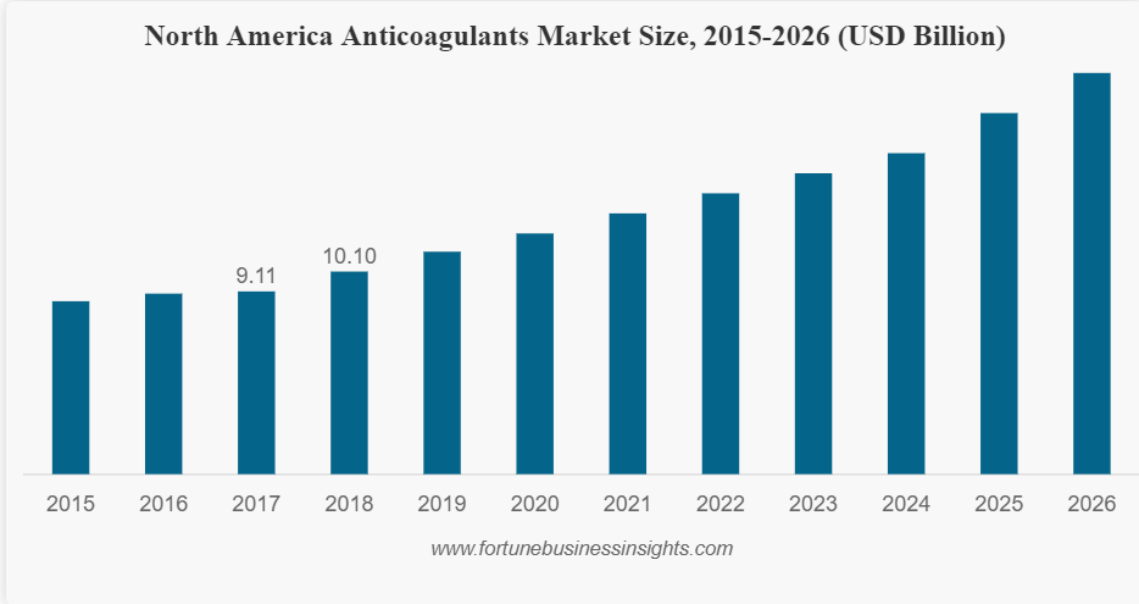
However, adverse effects of apixaban such as increased risk of thrombotic events after premature discontinuation and bleeding is expected to hamper adoption of this. This affects the market growth adversely.

Apixaban Market size 2015-2026

In the era of changed and modern lifestyles, cardiac problems are on higher prevalence and needs an immediate attention for better recovery.

Blood thinners often play a crucial role in human cardiovascular health protection by controlling and preventing blood clot formations.

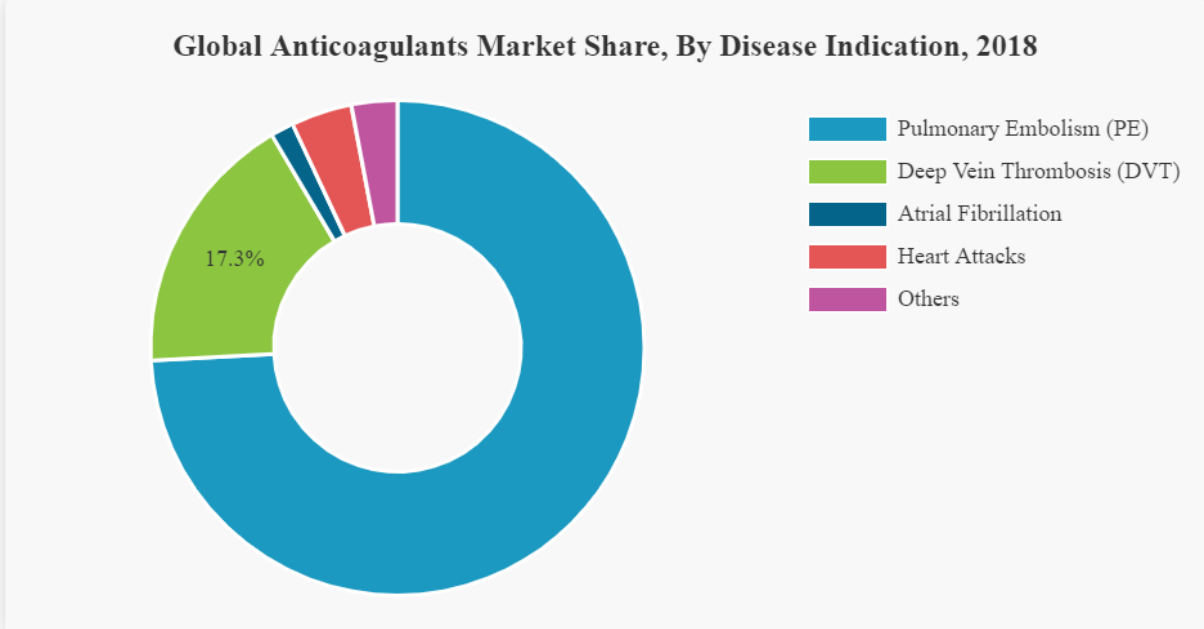
The market size in North America in 2015-2026 is:



Segmentation

By disease indication outlook:

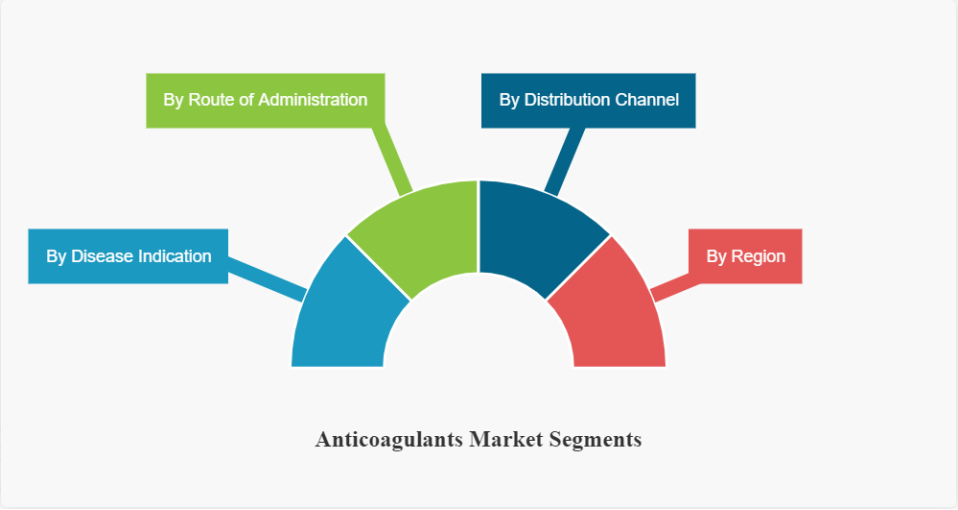
Based on the disease indication, global anticoagulant market can be segmented into Pulmonary Embolism, Deep vein Thrombosis, Atrial Fibrillation, Heart attacks.



Disease - Segment Analysis

The global atrial fibrillation is expected to reach US$ 18,085.96 million in 2027 from US$ 6,446.08 million in 2019. The market is estimated to grow with a CAGR of 14% from 2020-2027.

Anticoagulant Market Segment



CHEMIST SURVEY FORMAT

Disclaimer: Hello Sir/Madam, I Dr. Gunjan Shrivastava*, intern of Micro Labs is conducting a market survey on APIXABAN for my internship assignment. I would appreciate if you could assist me with some information which can help me to complete my project. Thanks in advance for your valuable time*.

Executive Name	
Chemist Name	
Location	
Email	
Phone No.	

1) What is the average number of APIXABAN prescriptions do you receive weekly at your pharmacy?

_____

2) Which APIXABAN (Same Category molecules) are the most selling molecule with their average weekly Rx? ☐

a) dabigatran
b) rivaroxaban ☐
c) Coumadin ☐
d) Others ☐

3) What is the different dosage strength/SKU of APIXABAN available at your Pharmacy? (Specify all)

S.No	Brand	SKU Name	Dose/Strength	Price
1				
2				
3				
4				
5				

4) Name the top five selling brands of APIXABAN in a sequence based on sales in your medical store-

Sr.No	Brand Name	Dose/Strength	Avg No. of weekly Rx
1			
2			
3			
4			
5			

5) For which among below options you receive high Rx? What is the average number of Rx on weekly basis?

Monotherapy ☐ Combination with ……. ☐

6) Are the customers' price sensitive towards brands?

Yes ☐ No ☐

BRAND NAME AND TRADEMARKS

A brand is a product, service, or concept that is publicly distinguished from other products, services, or concepts so that it can be easily communicated and usually marketed. A brand name is the name of the distinctive product, service, or concept

- Branding is the process of creating and disseminating the brand name. Branding can be applied to the entire corporate identity as well as to individual product and service names.
- A brand helps the consumers to identify and purchase a brand because of its quality and ability to satisfy the customers in a desired way.

HOW THE BRAND NAMES ARE GIVEN?

- The first is the registration of the drug name as a trademark with the United States Patent and Trademark Office.

- The second required regulatory review process is the approval of the proprietary drug name by the Food and Drug Administration (FDA) as part of its approval of the new drug itself.

- While both the FDA and the trademark office's review processes attempt to assess a likelihood of confusion, the Trademark Office's primary focus is to ensure that consumers are able to distinguish and identify the source of the drug product bearing the trademark.

- Its review and approval of the proposed trademark, which, if successful, culminates in the registration of the mark, does not involve an evaluation of public safety.

- The FDA's focus is to prevent errors in prescription, dispensing, and consumption that might result from confusing and misleading drug names and drug labels. The Trademark Office's approval process may be seen as a means to prevent confusion over product origin, while the FDA's review seeks to avoid brand name confusion that may lead to medication errors.

- A brand name can be a noun, an adjective or anything it can be. Even inventing a brand name of a drug is a big business. The drug companies hire branding consultants two or three years before their drug hits the market to craft a powerful, unique name that will entice physicians and patients. To generate a unique name drug companies also work with branding agencies to help them generate unique names.

- The name of the brand uses some tricks, such as plosive letters (P, T &D) to convey power, or fricative letters (X, F, S or Z) to imply speed.

- Some facts about nomenclature of drugs prevailing in USA:
    1. *Generic drug names do not begin with the letters H, J, K or W because these letters do not exist in some of the 130 countries that use U.S. generic names, or have different sounds in various languages.
    2. The USAN council has imposed a moratorium on the use of the letters X and Z as the first letters in generic drug names because they often sound alike at the start of words.
    3. *The USAN council avoids prefixes and stems like brev, vel, mal or mor because they imply other things (brevity, velocity, bad or death, respectively).
    4. *Approximately 60 percent of the world's generic drug names come from the U.S.drug industry.
    5. *The FDA rejects about one-third of all proposed trade names.

TRADEMARK

A trademark (also written trade mark or trade-mark) is a type of intellectual property consisting of a recognizable sign, design, or expression which identifies products or services of a particular source from those of others, although trademarks used to identify services are usually called service marks. The trademark owner can be an individual, business organization, or any legal entity. A trademark may be located on a package, a label, a voucher, or on the product itself. For the sake of corporate identity, trademarks are often displayed on company buildings. It is legally recognized as a type of intellectual property.

USE OF TRADEMARK :

- A trademark identifies the brand owner of a particular product or service. Trademarks can be used by others under licensing agreements; for example, Bully land obtained a license to produce Smurf figurines; the Lego Group purchased a license from Lucasfilm to be allowed to launch Lego Star Wars; TT Toys is a manufacturer of licensed ride-on replica cars for children. The unauthorized usage of trademarks by producing and trading counterfeit consumer goods is known as brand piracy.

- The owner of a trademark may pursue legal action against trademark infringement. Most countries require formal registration of a trademark as a precondition for pursuing this type of action. The United States, Canada, and other countries also recognize common law trademark rights, which means action can be taken to protect any unregistered trademark if it is in use. Still, common law trademarks offer to the holder, in general, less legal protection than registered trademarks.

WHAT CAN BE REGISTERED AS TRADEMARK?

A trademark can be taken for different categories. So it is important to know what can be trademarked. Any mark that distinguishes the business activity of one person from another and can be graphically represented can be trademarked. It can be any of the items from the list given below:

Name

The name can be further categorized as a product name, business name, name of any individual or surnames. But such name must be used for any business, trading or services. It can be in any specific text, colour, and style.

Product name

Many companies take trademark registration for the name of their products. For example, “McVEGGIE”, “McMuffins”, “MCCHICKEN”, “MCMASALA”, etc. All these are product names of McDonalds Corporation on whose behalf the trademark has been registered.

Business name

A trademark can be taken in the name of the business or company. For example “McDonald’s”, “PARLE”,” RELIANCE SHOPPE”, “RELIANCE POWER”, “ RELIANCEFRESH”. These all are business names which are trademarked.

Name of a person

The name of a person can also be trademarked if the persons earn through such name. Or such a person can allow his name to be used by any other person. In this case, the applicant has to provide NOC from the person whose name has been used. These type of trademarks are very common for celebrities. For example “SHAH RUKH KHAN”, “KATRINA KAIF”. They have trademarked their name.

Surnames

Running a business in the family name is common in India. Trademark on surnames on which business is carried on can be taken. For example “TATA”, “Mahindra”, “BAJAJ”. But Ministry does not allow the trademark on very common surnames such as “Singh”.

PESTLE ANALYSIS

PESTLE ANALYSIS is a tool, or a framework used by the marketers to analyze and monitor the Macro environmental factor (External Marketing Environment) that have an impact on organization.

PESTLE ANALYSIS each letter represents 1 factor:

POLITICAL

ECONOMICAL

SOCIAL

TECHNOLOGICAL

LOGICAL

ENVIONMENTAL

AIM OF PESTLE ANALYSIS

- When we want to expand or start our business in the global market, then by the help of PEST analysis we can assess the perspective of the market, assess the competitors and standpoint for the perspective business as well.
- It is a part of external analysis when conducting a strategic analysis.

POLITICAL

- All countries have various rules and regulations regarding the manufacturing, processing, and supplying of the drugs.
- Which includes Safety Standards, Certification, and Drug Related Laws.
- Govt. initiative pushes health education and health insurance.
- Govt. subsidies and tax waivers for health care companies.
- Unforeseen political policies may hamper market growth.
- High govt. interventions and bureaucracy affects market growth.
- Political agendas affect budget allocation to healthcare.
- Applicability of GST on pharmaceuticals
- Sales of medicines: It attracts GST at four different tax rates-Nil,5%,12%, and 18%.

- Regulatory Framework in Indian Pharmaceutical Industries:
    1. The Drugs Controller General of India ("DCGI) regulates India's drug market including product safety and efficacy, clinical trials, market authorization, and post market surveillance, approval regarding import, manufacture, sale and distribution and conducting clinical trials, Good Manufacturing Practices (GMP) certification.
    2. The Drugs and Cosmetics Act, 1940 ("Drugs Act") and the Drugs Rules, 1945 ("Drugs Rules") regulate the import, manufacture, licensing, testing, distribution, and sale of drugs in India. Under the Drugs Act, a drug is required to meet certain quality standards before it can be imported, manufactured, stocked, sold, or distributed.
    3. Schedule M 'Good Manufacturing Practices and Requirements of Premises, Plant and Equipment for Pharmaceutical Products,' The Drugs and Cosmetics Act and Rules, India. Schedule M classifies the various statutory requirements mandatory for drugs, medical devices, and other categories of products as per the current Good Manufacturing Practices (GMP).

ECONOMICAL

The well being of the pharmaceutical industry is dependent largely on the economy. The main factors that affects the industry are Unemployment, Uninsured and Underinsured people.

- Economic factors also affect in a good manner such as Growth in individual income, New drugs, Cost cutting.

Unemployment:

- Unemployment affects the Pharmaceutical industry in 2 ways,
- First, people who do not have jobs usually do not have the funds to buy pharmaceuticals they need.
- Second, many people rely on jobs to provide health insurance. Even when they are hired, many new employees do not receive benefits until they have been employed a set period.

Uninsured and Underinsured people:

- With no insurance or insufficient coverage, many people cannot afford prescription drugs. Those who lack adequate insurance are left with bills they cannot pay, and health care providers are not compensated.

Growth Individual Income:

- On the contradictory apart of unemployment, the income of an individual is also increasing, and general trend of household spending is also increasing, and people spend large part of it towards the pharmaceutical industry. The primary cause is that people can now own drugs that were previously of high price.

Cost Cutting:

- As the drug prices slashed by the government regulations, pharma companies are having to cut down on their production cost. This is the major downtrend for pharma industry.

SOCIAL

Socio-culture factors present both opportunities and threats to the pharma sector. On one side is the aging population which brings a wide range of opportunities for the industry.

- Social factors are your consumers. You need to look at buying habits, emotional needs and consumer behavior in this section.
- Because these are the people who directly influence your sales.
- The following 3 social factors affect the pharmaceutical industry.

Generation Health: The current population features people of older generation in a large number. This means the number of sick people is higher. This has placed a higher amount of pressure on the pharmaceutical industry leading to its growth.

Global Obesity: Obesity is a large factor of concern. The last few decades witnessed rapid changes in the global diet style, and this had led to obesity in the larger population. The rapid growth in obesity rates has led to the requirement for many drugs and allowed those sectors of the pharma industry to grow.

Health Consciousness: On the contrary, monitoring one's health has become a trend of the current generation. While this may lead to lesser requirement of doctors. People are more into fitness and health activities therefore doesn't require much medications.

TECHNOLOGICAL

Technology can be directly involved with company products, like manufacturing technologies.

- Technological development
- Research and development
- Associated technologies
- Patents
- Licensing
- Information technology
- Communication
- Social media and health care
- Direct to patient advertising
- Direct to patient communications

There are 2 major technological factors that affects pharmaceutical industry:

Growth in the Biotech industry

It has a large part to play in the creation of the drugs and the current growth in this industry is producing many new medicines and also developing new methods to make cheaper alternatives.

Market reach

In the world of new technologies pharmaceutical companies are able to market their products directly to the consumers, this has led to consumer purchasing more drugs and creating higher demand for consumer drugs.

Technology has brought several opportunities for the pharma and health sector.

Especially the rise of social media networking has given rise to several new profitable opportunities for the pharma sector. Social media started playing very crucial role in healthcare industries. It has become the new means to connect with costumers.

It provides pharma companies the opportunity to connect directly to its costumers and have one to one interactions through various ways (feedbacks).

New technologies help companies reduce production cost and bring down expenses. The rise of IT has brought several major opportunities where cost are also minimum for the drug makers.

LEGAL

The legal pressures are one of the biggest challenges in the pharma industries. Legal factors have to do with all the legislative and procedural components in an economy.

Also this takes into account certain standards that your business might have to meet in order to start your production or promotion:

- Employment law
- Consumer protection
- Industry specific regulations
- Future legislation
- Competitive legislation
- Environmental regulations

Strong legislation and cyber security are also 2 major factors in pharma industry:

Strong Legislation

Frauds in healthcare and pharmaceutical sector is quite common. Therefore, most of the govt. has placed strict laws that audit the growth of these companies. As a result, all the pharma companies must carefully meet all the govt. requirements while operating.

Cyber security

Pharmaceutical companies are now largely data based. Hence, they need to ensure protection from cyber threats. If a company is open to cyber threats their costumers might not trust their products and services.

ENVIORNMENTAL

The negative impact of the pharmaceutical production in the environment is well known.

The detrimental impact of pharma products is well known for the natural environment.

Pharmaceutical products enter the environment at various stages of their life cycle, but particularly during the production phase.

One of the main threats is that, discharging antibiotics into the environment can promote the natural development of anti-biotic resistant pathogens that are harder to treat.

Pharma pollution more directly and seriously affect those living near production plant whose water and food resources are contaminated with waste pharma products.

There are some important environmental risks associated with pharmaceuticals. Various kind of pharmaceutical residuals can pollute the environment. It is advised to have proper storage and disposal to avoid any kind of environmental impact.

Environmental factors have to deal with the geographical locations and other related environmental factors that may influence upon the nature of the trade you are in.

- Ecological
- Environmental issues
- Staff attitude
- Management style
- Environmental regulations
- Consumer values

The pollution of pharma products into the environment also adversely affects animals particularly fish living in contaminated water with pharmaceutical products.

Demographic Analysis

Apixaban is used for the treatment of patients who have had health problems caused by blood clots such as,

1. Strokes
2. Heart attack
3. Deep vein thrombosis (blood clots in legs)
4. Pulmonary embolism (blood clot in lungs)

It also prevents future blood clots in the patients like who have:

- Atrial Fibrillation (abnormal heartbeat)

Prevalence of the disease

- 23.8 million prevalent cases of ischaemic heart disease were estimated in India in 2016.
- 6.5 million (6.3–6.8) prevalent cases of stroke,
- 2.3 times increase in both disorders from 1990.
- Worldwide, in 2018, Coronary Heart Disease (CHD) was the leading cause (42.1%) of deaths attributable to Cardiovascular Disease in the US, followed by
    - stroke (17.0%),
    - high blood pressure (11.0%),
    - heart failure (9.6%),
    - diseases of the arteries (2.9%),
    - and other Cardiovascular Disease (17.4%).

Segmentation of Demographic analysis

1. Age

Age group	<70 Years	>70 Years
	42%	58%

2. Gender

Gender	Male	Female
	45.8%	54.2%

3. Dwellers

Dwellers	Urban	Rural
	62%	38%

4. Income

Income	>US $600	<US $600
	31%	69%

5. Occupation

Occupation	Professional worker	Non-professional worker
	67%	33%

Conlusion

After doing the study on apixaban, it is concluded that apixaban is highly recommended drug for the patients of heart conditions.

I also learnt about the pharmacology of apixaban , mechanism of action, uses, side effects

I came to know about brands and trademarks. How the brand names are given.

What are the criterias to give the brand name.

Also, the tool used is PESTLE Analysis, which is used used by the marketers to analyze and monitor the Macro environmental factor (External Marketing Environment) that have an impact on organization.

And at last Demographic Analysis, in which the analysis is done and saw that APIXABAN is used in different regions, people, categories.