

EXPLORING LANDSCAPE OF API MARKET IN THAILAND

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Master of Business Administration (MBA)

in

Pharmaceutical Management

By

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Under the Supervision and Guidance of

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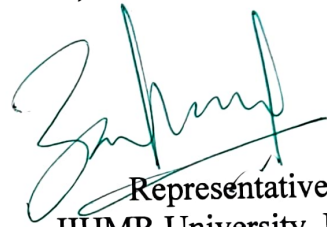
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CERTIFICATE

This is to certify that **Mr. Shanmukh Madapati** in partial fulfillment of the requirements for the award of the Degree of MBA Pharmaceutical Management from the IIHMR University, Jaipur has successfully completed his internship at IIHMR University, Jaipur during May 01, 2024 to June 25, 2024.

Place: Jaipur

Date: 28/06/2024

A handwritten signature in blue ink, appearing to be 'Zahid', written over a horizontal line.

Representative
IIHMR University, Jaipur

DECLARATION BY STUDENT

I **Shanmukh Madapati** Enrollment no **IIHMR-U/02/2022-24/0435** hereby declare that this dissertation titled **Exploring Landscape of API Market in Thailand** is the Bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

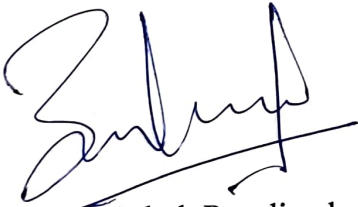
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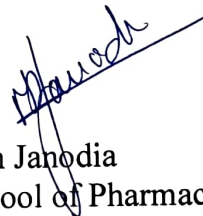
CERTIFICATE

This is to certify that dissertation titled Exploring Landscape of API Market in Thailand is a record of the research work undertaken by Shanmukh Madapati in partial fulfillment of the requirements for the award of the degree MBA (Pharmaceutical Management from the IIHMR University, Jaipur under my guidance and supervision and his/her approach to the research study has been sincere, scientific, and analytical.



Dr. Ashok Peepliwal.
IIHMR University, Jaipur

Date



Dr. Manthan Janodia
Dean of School of Pharmaceutical Management
IIHMR University, Jaipur

Date 28/06/2024

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ABSTRACT

Innovative pharmaceuticals that alter the way various diseases are treated have special qualities that may have an effect on the nation's drug policy as a whole. This study aims to examine Thailand's drug system's shortcomings as well as the current state of biological pharmaceuticals. It has been observed that Thailand's regulations on biological goods have progressed gradually and are currently meeting international standards. Currently, the country is in the process of crafting a new cell therapy act to enhance its oversight of advanced therapeutic pharmaceutical products. API restrictions are not a big deal, but there are still problems with access to expensive, cutting-edge API. In order to reduce costs, increase accessibility, and spur economic growth in Thailand, the Royal Thai Government is actively working to strengthen research and development of API domestically. In the short term, innovative pricing mechanisms for expensive drugs are employed to increase access. The current cold chain system for vaccines has largely created the architecture of the drug's supply chain. To boost Thailand's API medication system, however, human resources development for all sectors throughout the value chain is a critical issue that needs to be addressed. [\[1\]](#)

INTRODUCTION

In 2021, the Active Pharmaceutical Ingredients (API) market was worth USD 209.29 million. Over the next five years, it is projected to grow at a CAGR of 6.67 percent, reaching USD 308.34 million by 2027. An active ingredient in a pharmaceutical product is any substance or combination of substances intended for use in the manufacturing of pharmaceuticals. These substances may have pharmacological activity or have other direct effects on the disease's diagnosis, treatment, symptom relief, prevention, or function or structure. The Thai Programming interface market, zeroing in on its development, central members, and arising patterns. It looks at the current size of the market, the regulatory framework, the landscape of competition, supply chain dynamics, and challenges and opportunities. The market's development and job inside the Thai drug industry are pivotal for grasping its future development. In order to guarantee compliance and safeguard the quality of APIs used in medications, the regulatory framework governing their production and import is examined. The effect of administrative arrangements on the business' activities and advancement is additionally investigated. The cutthroat scene is breaking down, uncovering the qualities and shortcomings of significant homegrown and worldwide Programming interface producers and providers. The sourcing strategies, manufacturing procedures, and distribution channels are all examined as part of the supply chain analysis. A comprehensive understanding of the market's future trajectory and the strategies required to capitalize on its growth potential is provided by an evaluation of the market's challenges and opportunities. This paper means to give an all-encompassing comprehension of the Thai Programming interface market, offering significant experiences for scientists, policymakers, and industry experts. Scientists will acquire a more profound comprehension of the market's present status and future possibilities, while policymakers will utilize this information to illuminate administrative choices. Industry experts will profit from a thorough examination of the cutthroat scene and arising open doors that can shape their systems.

[\[2\]](#)

MARKET SIZE

Thailand's drug ingredient scene is a big player in Southeast Asia, worth an estimated \$1.5 billion. The market is growing rapidly, fueled by factors like more spending on healthcare, a growing number of elderly people, and a rise in chronic illnesses.

Local Thai companies are stepping up their game and making more and more of these essential ingredients. But they're still building their production muscle, so Thailand can't meet all its own needs yet. To fill the gap, they import a good chunk of APIs from major suppliers like China and India, who are world champions in this area. The market is broken down by the type of ingredient, what diseases they treat, and the main factors driving the growth

REGULATORY BODIES OF THAILAND

Thailand closely monitors its medications! The Ministry of Public Health's Thai Food and Drug Administration (TFDA) functions as the medicine police. Their responsibility is to ensure all medications are protected and compelling before they hit the racks. The TFDA oversees imports and exports, approves new medications, inspects their quality, monitors expired medications, and more. They have various groups for every one of these errands, similar to the Medication Control Division and the Department of Medication Control. The Service of General Wellbeing additionally has different divisions included, similar to the Branch of Clinical Sciences, which assists with research.

Even though the TFDA, Thailand's drug enforcement agency, does an excellent job, getting new drugs approved is not easy. There's an entire cycle for enrolling the medication, running tests to ensure it's protected, and it aren't confounding to really take a look at the marks. However, that is positive! The TFDA resembles a cautious however fair appointed authority, ensuring everything fulfills the most noteworthy guidelines. The good news is that they are constantly working to make this procedure easier and more up-to-date, keeping up with global best practices. Thailand even forms a club for safe medicine with other Southeast Asian nations to share these best practices! Eventually, this large number of obstacles are worth the effort in light of the fact that the TFDA assumes an imperative part in keeping Thais sound. They ensure that everyone has access to medication that is both safe and effective, giving people peace of mind at a time when they need it most. [\[3\]](#)

LITERATURE REVIEW

The Thai government aims to develop the pharmaceutical sector as a key part of its medical hub industry, which is one of its new S-curve industries. This is part of their plan for a new model of economic development that prioritizes to upgrade technology, innovation, and research and development (R&D). The government has created a policy to make Thailand a major player in the regional medical hub industry (Cabinet resolution, November 17, 2015). Specifically, the development of the pharmaceutical sector is addressed in national drug policies and “The National Drug System Development Strategies for 2020-2022,” with a focus on developing vaccines, chemical drugs, active pharmaceutical ingredients (APIs), API, and herbal extracts. The goal is to increase competitiveness through R&D, reduce imports, boost exports, and enhance the quality of healthcare for the Thai people (National Drug Policy Group, 2021).

The pharmaceutical industry plays a critical role in maintaining a stable supply of medicines and driving economic development. This is due to several factors such as the emergence of new diseases, rising cases of non-communicable diseases (NCDs), an aging population, and technological advancements. The COVID-19 pandemic has highlighted the importance of being prepared for future health crises by having the manufacturing industry ready and promoting partnerships between academia and other countries for the development of medicine, vaccines, and medical supplies. Effective crisis management requires proper planning and policies in place to respond to outbreaks quickly and effectively.

Bulk medicine imports from other nations have dominated Thailand's market for active pharmaceutical ingredients, or API. A significant contributing aspect to the underlying problem is the incapacity of local players to develop medications in quantity at prices significantly lower than those of exporting nations. Nonetheless, there are niche market participants in Thailand that are concentrated on producing particular bulk medications.

With yearly sales exceeding Baht 37 billion (US\$ 825 million) in 2002, Thailand's pharmaceutical market ranked fourth in Southeast Asia, after Taiwan (US\$ 2.5 billion), the Philippines (US\$ 1.2 billion), and Indonesia (US\$ 963K).

Domestic players include Siam Pharmaceuticals, Greater Pharma, and Thai Meiji Pharmaceutical, while international players like Pfizer, Novartis, and Sanofi have a significant presence in Thailand. The Thai Food and Drug Administration (FDA) plays a crucial role in regulating the API market, with compliance with Good Manufacturing Practices (GMP) and international quality standards mandatory for market approval. The government's policies promoting local production and reducing dependency on imports are also shaping market dynamics. The API market in Thailand is projected to continue its growth trajectory, potentially reaching USD 2 billion by 2027. [\[4\]](#)

RESEARCH METHODOLOGY

Research Questions

- What are challenges and opportunities for Thai API market in coming decade?
- What is the effect of technology and innovations that are having vigilant impact on the Pharma market of Thailand?
- How are the major economic drivers influencing the growth of API market in Thailand?

Objective of study

To study the API industry landscape and assess the capability of Thailand's pharmaceutical industry in the context of the API market in Thailand.

Hypothesis

The study supports dependent variable hypothesis. As it totally depends on the growth of API market in Thailand.

We believe that as regulations become more streamlined across Southeast Asian countries (ASEAN), the Thai API market will experience significant growth. This research will test this hypothesis by looking at how changes in regulations affect the Thai API industry's performance and competitiveness compared to its neighbors. Ultimately, we want to understand how regional integration impacts market growth.

Material and Methods

Study design: Descriptive Type

Setting: It would be primary and secondary research, with the goal of compiling data from Surveys and Questionnaires, Interviews, Observational Studies, Focus Groups, legal documents, regulatory documents, case studies and reports that are already in existence.

Sample Source: Primary and Secondary Research

Research Approach/Procedure: Qualitative Approach and Quantitative Approach

Data analysis plan: if necessary analyse reports and surveys using excel.

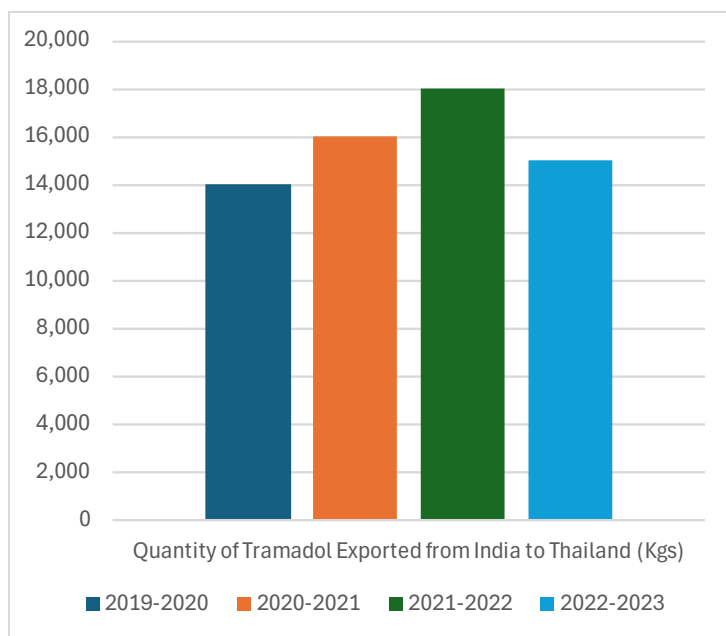
Ethical consideration

The required research standards were followed during the research. It was ensured that the use of respondents' information, their consent was requested, and appropriate authorization was also be carried out. The respondent's consent was required their identity.

RESULT AND DISCUSSION

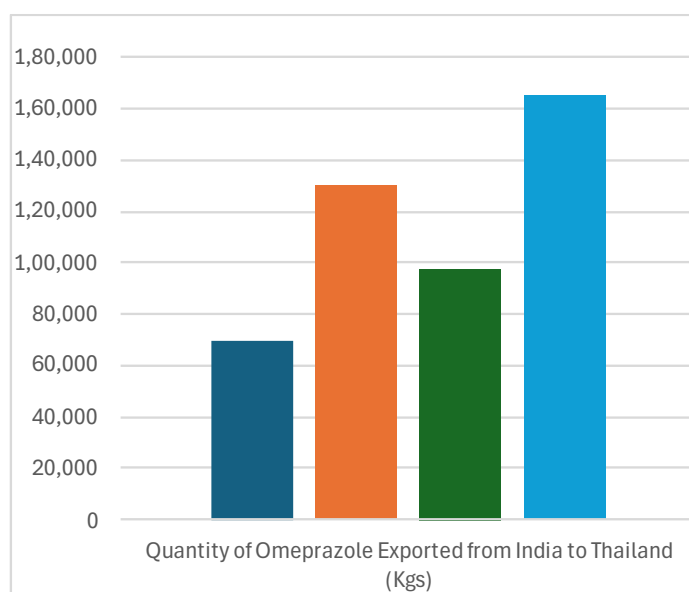
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Quantity of Tramadol Exported from India to Thailand (Kgs)



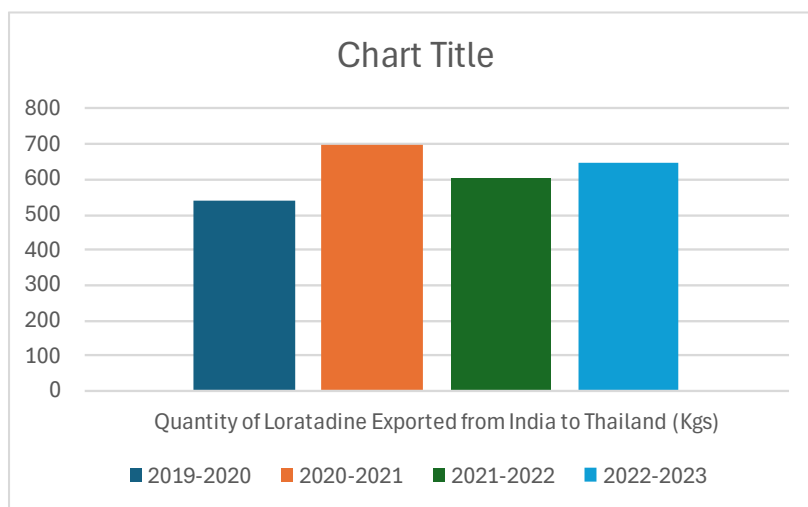
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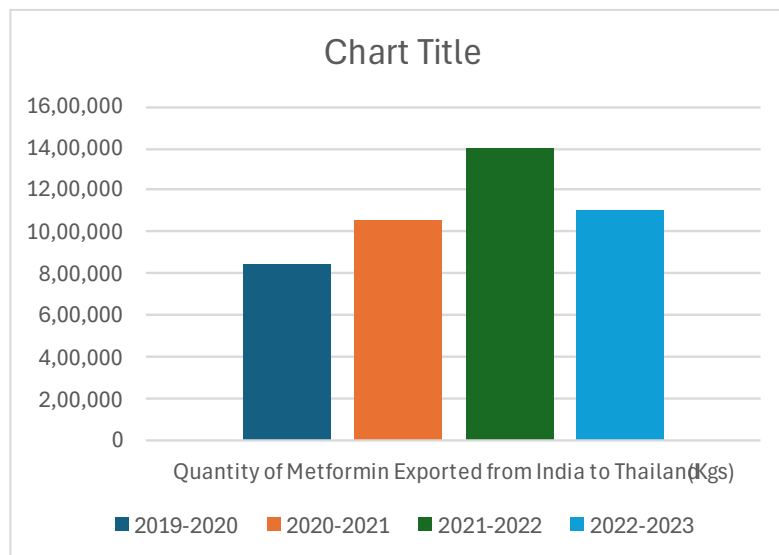
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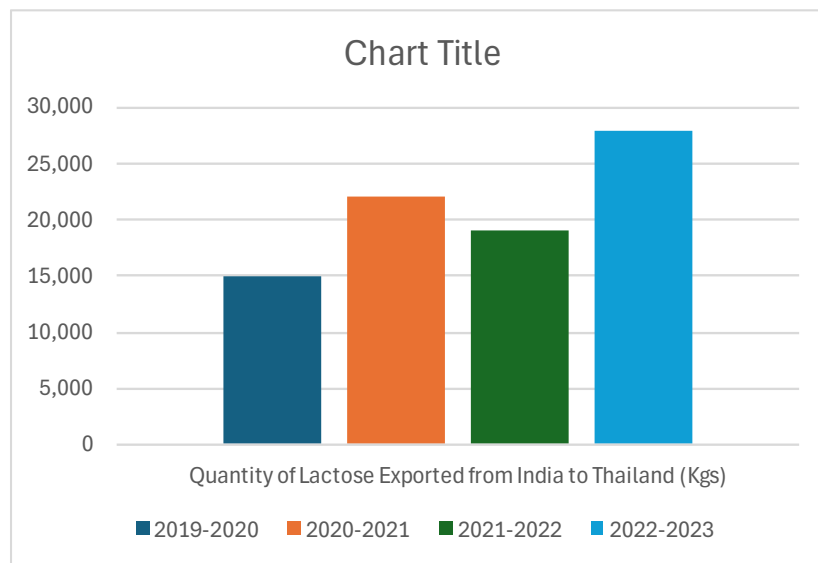
Q What amount of Metformin is Exported from India to Thailand (Kgs) ?

Quantity of Metformin Exported from India to Thailand (Kgs)



Q What amount of Lactose is Exported from India to Thailand (Kgs) ?

Quantity of Lactose Exported from India to Thailand (Kgs)



CONCLUSION

As a result, multinational corporations in developed nations with access to a global export market, technological know-how, skilled scientists, and financial resources are the best candidates for such endeavors. This perception lines up with discoveries from the Herfindahl-Hirschman File (HHI) examination, which uncovered that the normal product focus from 2012 to 2021 was roughly 0.21, it isn't exorbitantly high to propose that the commodity fixation. Nonetheless, countries with advanced technology and a significant pharmaceutical production base dominate exports. In Thailand, the drug business transcendentally centers around delivering nonexclusive medications once the first licenses terminate, with API immunizations still in early improvement stages. The capacity for technological investment and production, in addition to the level of research, development, and innovation, requires improvement. However, the Coronavirus pandemic has served both as an emergency and an open door, catalyzing progressions in the essential Research and development framework for immunization improvement and creation because of general wellbeing crises. During this time, the public and private sectors, as well as international organizations, worked together in a way that had never been done before. This led to the largest drug development budget in Thailand's history—5,480.22 million baht—funded by the government. The determination of how this R&D advancement will affect the growth of the pharmaceutical industry over the long term remains a significant obstacle.

Up to 20% of pharmaceutical companies' revenue is frequently allocated towards research and development. It is a difficult path to pharmaceutical innovation even with this large funding. It has a comparatively poor success rate, is costly, and requires a lot of time. The number of medications that are developed that are actually released onto the market is quite low. Ultimately, these companies' efforts to discover and develop new drugs are crucial. Even though the process is tough and costly, the potential benefits—new treatments and cures—are invaluable for global health.

RECOMMENDATION AND SUGGESTIONS

- Formulate a coherent policy to reinforce the domestic pharmaceutical industry and secure national drug stability.
- Monitoring and adaptation to market trends
- Providing detail diversification in API product portfolio
- Working on intellectual property challenges
- Invest in Talent Development and training of workforce candidates.

LIMITATION OF STUDY

- The research depends entirely on primary and secondary research collected from external and internal sources.
- Limited amount of case studies and annual reports available for analysis if data
- The report contains perspective of various and numerous publishers

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