

Pharmaceutical industrial outsourcing as a strategic option for the development of the pharmaceutical industry in Algeria

**المناولة الصناعية الصيدلانية كخيار استراتيجي لتنمية
لصناعات الدوائية في الجزائر**

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Abstract:

This study aims to analyze the current state of industrial outsourcing and assess its role in strengthening the pharmaceutical industry in Algeria, which has been a key priority for the Algerian government since the liberalization of the pharmaceutical market in 1990.

The study highlights the importance of industrial outsourcing as an effective tool for improving and increasing local production of pharmaceutical products, which in turn helps reduce reliance on imported medications. In this context, industrial outsourcing is considered a strategic option for enhancing the pharmaceutical sector in Algeria, given the potential positive outcomes it could achieve.

One of the main findings of the study is that the contribution of industrial outsourcing to boosting local pharmaceutical production and reducing import dependency has not yet met the desired objectives. Dependence on imports continues to be a significant factor in meeting the needs of the local market.

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الملخص:

تهدف هذه الدراسة إلى تحليل الوضع الحالي للمناولة الصناعية وتقييم دورها في تعزيز صناعة الأدوية في الجزائر، التي تُعد من الأولويات الأساسية للحكومة الجزائرية منذ تحرير سوق الأدوية في عام 1990. تركز هذه الدراسة على أهمية المناولة الصناعية كأداة فعالة لتحسين وزيادة الإنتاج المحلي للمواد الصيدلانية، مما يساعد في تقليص الاعتماد على الواردات من الأدوية. في هذا السياق، تُعتبر المناولة الصناعية خياراً استراتيجياً لتعزيز قطاع الأدوية في الجزائر، بالنظر إلى النتائج الإيجابية المحتملة التي يمكن تحقيقها من خلالها.

من أهم النتائج التي توصلت إليها الدراسة أن مساهمة المناولة الصناعية في تعزيز الإنتاج المحلي للأدوية وتقليص الاعتماد على الواردات لم تحقق الأهداف المرجوة حتى الآن، إذ لا يزال الاعتماد على الواردات قائماً لتلبية احتياجات السوق المحلي.

الكلمات المفتاحية: صناعة صيدلانية، مناولة، صناعة دوائية، تنمية، الجزائر.
تصنيفات JEL: O55, O10, L23, L65 .

1. Introduction

Industrial outsourcing has become a hallmark of both developed and emerging economies amid the globalization of markets and the increasing trend of industrialized nations towards greater consolidation and coordination in production and marketing. The significance of outsourcing and industrial partnerships has emerged as a dynamic factor in fostering and activating the interconnection and integration among industrial entities, with the goal of advancing the industry, its products, and enhancing its competitive capabilities in both domestic and international markets, along with achieving other specific economic and social objectives.

The rapid changes in the global economy, characterized by technological advancements and a surge in the number of competitors, have impacted many industrial sectors, notably the pharmaceutical industry, which faces unprecedented challenges. To adapt to these shifts, industrial entities have turned to establishing cooperative relationships, with industrial outsourcing emerging as an effective method of collaboration.

Currently, the development of the pharmaceutical sector is a major priority for many countries, especially in the wake of the COVID-19 pandemic that has affected much of the world. Algeria has demonstrated a strong commitment to advancing its pharmaceutical sector since its liberalization in 1990. Industrial outsourcing, as a form of partnership, is considered one of the key strategies the Algerian government relies on to revitalize the pharmaceutical industry.

a. Research questions :

Based on the above, the research problem can be framed as: Is it possible to discuss industrial outsourcing in Algeria?

How can it contribute to the enhancement and development of the pharmaceutical industry in Algeria?

b. Research Objectives:

This research aims to achieve the following objectives:

- To assess the current state of industrial outsourcing in Algeria.
- To analyze the reality of the pharmaceutical industry in Algeria.
- To identify the main challenges and obstacles faced by pharmaceutical outsourcing in Algeria.

c. Research Methodology:

The research methodology is based on a descriptive-analytical approach, describing the phenomenon through the explanation of concepts and highlighting the importance of adopting economic outsourcing in enhancing the productivity of the pharmaceutical industry in Algeria and stimulating effective investment in it.

d. Study Areas:

To comprehensively address the research topic, the analysis is structured around the following areas:

- Theoretical framework of industrial outsourcing.
- Industrial outsourcing in Algeria.
- Pharmaceutical industrial outsourcing in Algeria.

- The role and importance of outsourcing in the development of the pharmaceutical industry.
- Obstacles and challenges of industrial outsourcing in Algeria.

2. Theoretical Framework of Industrial Outsourcing

Economic institutions, regardless of their size, strive to enhance their competitive capabilities and maximize their added value. Among the means to achieve this are the diversification of relationships between institutions, which materializes in rational strategies including various forms, with industrial outsourcing being one of the most prominent.

2.1. Concept of Industrial Outsourcing

Several economists have addressed the issue of outsourcing, including Say, Cantillon, Schumpeter, and Peter Drucker, who were among the first to highlight the shift in modern economies from management economies to entrepreneurial economies. Additionally, A. Salle, PYVES Barreyre, and Houssiaux played a significant role in advancing entrepreneurial and organizational thought through their contributions to the development of cooperative and integrative relationships, resource allocation, and the enhancement of institutional competitiveness. Despite the growing interest in outsourcing as a crucial method for implementing outsourcing contracts and demonstrating its importance as a driver of cooperative relationships, optimal use of production capacities, and increased competitiveness, economists have not yet reached consensus on a unified definition of the term "outsourcing" [1], [2].

2.1.1. Definition of Industrial Outsourcing

The definition of industrial outsourcing varies among researchers, so it is useful to first understand the linguistic meaning of the term "outsourcing" before providing a technical definition.

a. Linguistic Meaning:

In Arabic, "outsourcing" (مناولة) means to give or hand over, derived from the root verb "ناول" (to hand over). For example, "ناول الدواء" means to hand over the medicine.

b. Technical Definition:

According to the *Financial and Business Dictionary*, outsourcing is defined as: "A process through which a company or institution delegates or entrusts certain tasks or operations to another external company or institution, to execute achievements according to specific plans set by the original (ordering) institution, while retaining its economic responsibility" [1].

The United Nations Industrial Development Organization (UNIDO) defines it as: "An agreement where the project owner (maître d'ouvrage) entrusts one or more institutions with the production of parts, components, or sub-assemblies, or the provision of complementary industrial services necessary to complete the final product of the ordering institution, according to the ordering institution's specifications, allowing the subcontractors to reach higher levels of specialization in specific fields and sectors" [2].

In Algeria, the legal definition of industrial outsourcing is provided in Official Gazette No. 25, dated May 2, 2018, regarding customs exemptions for subcontracting companies under Article 20 as follows: "Outsourcing is the process through which the 'ordering institution' entrusts another company, the 'subcontractor' or 'order recipient,' with the execution of all or part of the outsourcing contract, which substitutes for the authorization" [7].

Based on the above definitions, a comprehensive definition of industrial outsourcing is the process by which an ordering or commissioning institution (donneur d'ordres) assigns another institution or institutions, known as the service provider or subcontractor (sous-traitant), to perform one or more stages of the production process according to a specified and binding contract for both parties [1]–[3].

2.2. Justifications for Industrial Outsourcing by Institutions

There are several reasons that drive institutions, whether large, small, or medium-sized, to engage in industrial outsourcing. Some of the most prominent justifications include [1]:

2.2.1. Enhancing Competitive Capabilities:

Improving the competitive edge of the industrial institution.

2.2.2. Accessing New Technology:

Acquiring new technologies through partnerships and collaboration with subcontractors specialized in the same field.

2.2.3. Gaining Skills and Knowledge:

Acquiring expertise, optimizing competencies, improving human resources, and gaining new knowledge.

2.2.4. Reducing and Sharing Risks:

Minimizing and sharing risks, especially those that may arise during the production process.

2.2.5. Reducing Production and Marketing Costs:

Lowering costs associated with production and marketing through economies of scale.

2.3. Importance of Industrial Outsourcing

The importance of industrial outsourcing is highlighted as follows[3]:

2.3.1. Investment Opportunities:

Producing some or all production inputs domestically can create thousands of investment opportunities for small and medium-sized industrial projects. This helps close production gaps, complete the production chain, and strengthen the integration of the industrial sector at the local level.

2.3.2. Technological Development:

Producing according to the specifications provided by ordering institutions can lead to the development of local technology and an increase in the adoption of imported technology based on the needs of these factories. This results in improved product quality, production efficiency, and competitiveness.

2.3.3. Import Substitution and Foreign Exchange Savings:

Manufacturing production inputs for large industries, including spare parts and components, can stimulate import substitution industries. This helps reduce foreign currency outflows and improves the balance of payments.

2.3.4. Enhanced Competitive Capabilities:

Outsourcing improves competitive capabilities both locally and internationally by encouraging industrial institutions to specialize in technical areas. This leads to increased productivity, better product quality, and cost reduction.

3. Industrial Outsourcing in Algeria

3.1. The State of Pharmaceutical Outsourcing in Algeria:

According to the President of the Outsourcing and Partnership Exchanges, Algeria has approximately 1,000 companies operating in the industrial outsourcing sector, representing 10% of the industrial fabric, compared to 20% in Tunisia and 28% in Morocco [4]. A report on the prospects for developing outsourcing in Algeria indicates that the majority of outsourcing companies are small, with an average of 1 to 10 employees. 51% of these companies are located in the northern region, followed by the highland areas at 31%, and the southern region at 18%. There are two types of outsourcing companies: first-degree companies, typically individual entities (SARL, SPA, EURL), and second- and third-degree entities, which are often legal entities engaged in outsourcing [4].

The weakness of industrial outsourcing in Algeria can be partially attributed to the industrial strategy adopted from independence

until the late 1980s [5], which prioritized large industries. This led to the absence of a small and medium-sized industrial sector capable of integrating with large enterprises that relied heavily on importing most of their inputs. With Algeria's transition in the early 1990s from a directed economy to a market economy, the industrial sector's contribution to GDP declined from around 20% to 6% in recent years [6]. This shift from a productive economy to a distribution and import economy weakened the industrial fabric and subsequently reduced the level of industrial outsourcing [2].

Given the lack of interest from Algerian investors in the outsourcing sector and their shift towards investing in other economically "crowded" sectors, such as the food industry, experts urge raising awareness about the benefits of industrial outsourcing. This can help alleviate the financial burden imposed by importing these parts, which is expected to decrease in the coming years, especially with the current positive economic indicators in Algeria that encourage investment.

Consequently, national institutions are now compelled to adapt their capabilities and systems to keep up with the global developments in industrial outsourcing to enter the international market. The industrial outsourcing sector in Algeria has long been subject to various factors affecting its performance, with fluctuating figures until the government introduced a series of measures and practical steps to encourage and stimulate the integration of small and medium-sized enterprises into the global outsourcing trend. This includes promoting partnerships with major employers, whether local or foreign, and coordinating the activities of outsourcing and partnership exchanges in Algeria [1].

3.2. The Importance of Developing Industrial Outsourcing for the Algerian Economy:

3.2.1. At the Macro Level:

3.2.1.1. Reducing Import Volume:

Algeria annually imports approximately \$3 billion worth of outsourcing parts used for the maintenance and repair of industrial

machinery and equipment. This high import volume results from a lack of focus on this sector, despite its potential as a development driver and a tool for reducing foreign currency outflow—these materials have the potential for local production [3].

3.2.1.2. Increasing National Integration:

The national outsourcing market in Algeria has significant potential that, if fully utilized, could lead to strong national integration. According to the President of the Algerian Outsourcing and Partnership Exchange Council, national industrial groups producing tractors, engines, and vehicles import nearly 70% of their inputs, including mechanical, electronic, and plastic parts, despite the capability of the local industrial fabric to meet this demand [7].

3.2.1.3. Diversifying and Increasing Exports:

The global trend of outsourcing can become a growth factor for the exports of Algerian SMEs. To capitalize on this, the government should support investment in this sector and leverage Algeria's strategic advantages, such as geographical proximity to Europe, high-quality and cost-effective human resources, and the activation of the partnership agreement with the European Union [8]. It is notable that Tunisia and Morocco generate significant revenues from spare parts, with Tunisia earning \$5 billion and Morocco \$7 billion, while Algeria, despite its capabilities and opportunities, has not achieved comparable revenues[8].

3.2.2. At the Micro Level:

3.2.2.1. Proximity and Flexibility:

Developing outsourcing brings manufacturing tools closer to contracting companies, providing them with greater flexibility in supply, reducing costs, and improving adherence to maintenance schedules. It also enhances the utilization of domestic raw materials to meet production capacity needs in various sectors such as foundries, mechanical engineering, and plastics. For example, a truck consumes 5

tons of steel and 100 kg of aluminum alloys. However, national production of steel and iron meets only 30% to 35% of market needs [9].

3.3. Challenges Facing Industrial Outsourcing in Algeria

The industrial outsourcing sector in Algeria faces numerous administrative, procedural, legal, and even cultural barriers that hinder its development and expansion. The main challenges can be summarized as follows:

3.3.1. Weak Industrial Structure:

The Algerian industrial sector suffers from limited integration between its branches and units concerning the production and marketing of industrial parts and services. This fragmentation makes it difficult to identify outsourcing opportunities within large enterprises, which often prefer to integrate various process stages internally. Additionally, outsourcing firms face issues such as low productivity [1].

3.3.2. Lack of Communication and Information Culture:

Many outsourcing firms operate in isolation, leading to a lack of awareness about their products. This isolation drives economic operators to import parts, assuming that local alternatives are unavailable, despite potential local production [10].

3.3.3. Poor Quality Management:

SMEs in Algeria often lack effective quality management systems, which contrasts with the stringent requirements imposed by client firms, especially foreign ones. For example, obtaining ISO 9001 certification, a minimum standard for securing contracts with major companies, is a significant challenge in Algeria compared to neighboring Tunisia and Morocco. The National Institute of Standardization (IANOR), which supports outsourcing firms in achieving this certification, has reported low participation despite its extensive promotional efforts since 2015[11].

3.3.4. Unstable Demand:

The demand for outsourcing services in Algeria is often inconsistent, ending when the client firm no longer needs the provided service. This unpredictability leaves outsourcing firms in a state of inactivity, waiting for new project orders. Government intervention is necessary to address this issue by enacting laws that protect and support outsourcing firms [2].

3.3.5. Delayed Payments:

Outsourcing firms sometimes face delays in receiving payments from client firms, particularly those in the public sector. This delay affects their liquidity and operational continuity. Legal proceedings to recover payments can be lengthy, prompting firms to abandon outsourcing in favor of more secure sectors [12].

4. Pharmaceutical Outsourcing in Algeria

4.1. Emergence of Pharmaceutical Outsourcing in Algeria

Pharmaceutical outsourcing in Algeria began in the early 1990s following the enactment of the Public Procurement Law on November 9, 1990, which was later amended by Decree No. 03/301 on September 11, 2003. This law allocated a section to subcontracting as a means of executing large projects, particularly industrial outsourcing in general [1]. The collaboration occurred between Algerian pharmaceutical companies and large global laboratories seeking production sites in Algeria. Although pharmaceutical outsourcing started at a very low level, it has been growing since the 2000s, especially after the issuance of the supplementary Finance Law related to investment (Order No. 09/01 dated July 22, 2009). This law stipulates that foreign capital can only be invested through partnerships, with national contributions representing at least 51%, and requires companies wishing to invest in Algeria to distribute their products locally, alongside a ban on importing products that can be manufactured domestically. This measure aims to address the continuous increase in the pharmaceutical import bill [2], [3].

4.2. Developments in the Pharmaceutical Industry in Algeria

The pharmaceutical industry in Algeria has seen significant and tangible developments, particularly after the liberalization of foreign trade and the issuance of Law No. 90/10 on monetary and credit regulations, as well as the Investment Promotion Law [4], [5]. These changes allowed the private sector to engage in importing, wholesale distribution, and drug production. According to a Ministerial Decree issued in July 1992, which granted operating licenses to pharmaceutical production and distribution companies, all barriers to private sector involvement in pharmaceutical production were removed [6].

By 1999, the Algerian private pharmaceutical sector comprised 31 companies (laboratories), with 18 involved in manufacturing and 13 in packaging. In contrast, there were 36 companies specializing in drug imports, twice the number of companies involved in production, manufacturing, and packaging [7]. Notably, most private Algerian pharmaceutical companies (78% of the total) emerged after 2000, particularly following the Investment Promotion Law. By 2007, the number of private pharmaceutical companies had risen to 38, along with two public entities, after being predominantly controlled by public institutions for a long time [8].

The Algerian pharmaceutical industry has also experienced growth in terms of foreign involvement through partnerships with local operators and the establishment of production units specializing in certain drug formulations, as well as packaging and processing units [10]. By 2023, the number of pharmaceutical companies involved in production had increased to 200, with 137 specializing in drug production, covering more than two-thirds of national needs. According to the Ministry of Pharmaceutical Industry, these figures are expected to rise with 69 new investment projects, including 42 for pharmaceutical production and 27 for medical supplies. Additionally, the number of locally produced drugs has increased to 2,889 out of 3,641 registered in the national directory [11].

The Minister of Pharmaceutical Industry has announced a new strategy for enhancing national coverage of health needs through domestic production and promoting pharmaceutical and medical exports. The minister indicated that efforts will be made to increase pharmaceutical exports in 2023 after meeting national needs [12].

4.3. State of Pharmaceutical Outsourcing in Algeria

The national market has shown significant dynamism, particularly after the state opened it to private operators for production, import, packaging, and distribution [2], [9]. The national policy aims to encourage local production, especially of generic drugs, to achieve a 70% coverage of consumption with the assistance of foreign laboratories, particularly through industrial partnerships via outsourcing [1], [4]. Local production has grown by 62% during the period 2008–2009 [12].

Generic drugs represent 71% of the Algerian market, compared to 29% for original drugs. Imports hold the largest share, with 75% of drugs being imported and only 25% produced locally. Generic drugs constitute the majority of imports, around 58%, compared to 42% for original drugs. Locally produced generic drugs account for 94% of domestic production, while original drugs produced locally represent only 6%, with production mainly by foreign subsidiaries [13].

Overall, Algeria is heavily dependent on the international market. Although local companies can secure capital and resources to establish drug manufacturing facilities, technical skills, patents, and business management are often obtained through direct foreign investment or partnerships (industrial outsourcing) [3], [5].

5. The Role and Importance of Outsourcing in Developing the Pharmaceutical Industry in Algeria

5.1. 4.1 Role of Pharmaceutical Outsourcing:

Pharmaceutical outsourcing plays a crucial role in enhancing and developing the production capabilities of firms and expanding the industrial fabric in Algeria. Its role can be summarized as follows:

5.1.1. Increasing Productivity, Efficiency, and Optimal Use of Resources:

Pharmaceutical outsourcing provides significant opportunities for subcontractors, often small and medium-sized enterprises (SMEs), to boost their productivity through contracts with large pharmaceutical laboratories [1], [2]. These contracts, which generally involve detailed specifications and are typically medium to long-term, require a high degree of specialization. This drives subcontractors to enhance their knowledge, skills, and competencies to effectively perform the outsourced activities [3], [4]. Additionally, pharmaceutical outsourcing allows these firms to optimize their resources by directing part of their production capacity to fulfill the orders from large pharmaceutical companies. The skills and competencies gained through outsourcing contribute to increased profits and directly impact investments and returns [1], [5].

For instance, the agreement between Pfizer and Saidal to create the Pfizer-Saidal Manufacturing unit, which began production in 2003, employed 63 workers and achieved a production of 10 million units with a turnover of 3.7 billion DZD in 2012. Similarly, Sanofi-Aventis signed a manufacturing agreement to produce 80–85% of its products in Algeria with Saidal's WINTHROP PHARMA SAIDAL WPS, starting production in 2000. This facility, employing 103 workers, achieved a production of 24.6 million units with a turnover of 1.8 billion DZD in 2012 [6], [12]. Large companies like Sanofi-Aventis and Pfizer supply raw materials and production methods to subcontractors, which help these firms gain the necessary skills and competencies for high-quality production. These relationships also drive continuous technical innovation to maintain market share [7], [8].

5.1.2. Technology Transfer and Risk Sharing:

Pharmaceutical outsourcing is an effective means of sharing and mitigating risks. By combining skills, risks are reduced, and outsourcing provides subcontractors with opportunities to access technology and expertise that would otherwise be difficult to obtain due to high costs or

skill shortages [4], [9]. For example, the agreement between Sidal and Sanofi-Aventis on April 16, 2006, involved Sanofi providing technical files and all relevant technical and scientific information to Sidal for the production and monitoring of these products. This exchange of technical and scientific information allowed Sidal to increase its market share, create new jobs, and acquire new production techniques [6], [12].

For the national economy, pharmaceutical outsourcing led to a 20% increase in pharmaceutical production in Algeria between 2000 and 2012. However, this level only covers about 33% of the local market, and outsourcing also helped reduce imports from 80% of the market size in 2000 to 67% [12]. Despite these advantages, pharmaceutical outsourcing in Algeria still faces several obstacles [12].

6. Obstacles to Industrial Outsourcing in Algeria

Despite the role that industrial outsourcing plays in enhancing the productivity of the pharmaceutical industry and effectively contributing to the expansion of the industrial fabric, it has yet to reach the desired level in Algeria. This is due to various internal and external obstacles associated with the business environment, which include [1], [2].

6.1. Internal Obstacles:

6.1.1. Financial Constraints:

Funding is a major issue hindering small and medium-sized outsourcing firms. These companies often struggle to secure the necessary financial resources to fund their operations or establish projects due to their size (lack of guarantees) and relative newness[3],[4].

6.1.2. Administrative Challenges:

Some small and medium-sized outsourcing firms suffer from inadequate administrative expertise and organizational capabilities, often due to centralized decision-making processes within the companies [1].

6.1.3. Difficulty Accessing Technological Resources:

High costs associated with acquiring technological resources pose a significant barrier for these firms [2].

6.1.4. Shortage of Skilled Labor:

There is a lack of qualified personnel to meet the needs of the outsourcing industry [5].

6.2. External Obstacles:

6.2.1. Weak Industrial Structure:

The Algerian industrial sector is characterized by a lack of integration among production units (consumption, production, and industrial services), which hampers efficiency [3], [6].

6.2.2. Absence of a Data Bank:

There is no comprehensive information bank available for these firms, making it difficult to access relevant data and resources [4], [7].

6.2.3. Lack of Tax and Customs Incentives:

There are insufficient fiscal and customs incentives to encourage the growth and development of outsourcing firms [7].

6.2.4. Unstable Availability and Pricing of Raw Materials:

The irregular supply and fluctuating prices of raw materials, combined with insufficient capital for storage, result in higher costs for these firms. This negatively impacts their competitiveness, as their products are relatively more expensive [8], [12].

6.2.5. Intensified Competition:

The lack of protection for domestic products against the influx of imported goods exacerbates competition, further challenging local outsourcing firms [9], [10], [11].

7. CONCLUSION

Based on the preceding discussion, it is evident that Algeria remains heavily dependent on the international pharmaceutical market. Despite the potential for local companies to secure capital and resources to establish pharmaceutical manufacturing facilities, acquiring technical skills, patents, and business management expertise often relies on direct foreign investment or industrial outsourcing.

7.1. Study Findings

The study yielded several key results:

7.1.1. 6.1.1 Industrial Outsourcing as a Core Element:

Industrial outsourcing is fundamental to any industrial development process, serving as an indicator of economic progress by enhancing and increasing productivity.

7.1.2. Importance of the Pharmaceutical Industry:

The pharmaceutical industry plays a crucial role in boosting local production and reducing reliance on imports.

7.1.3. Development Goals for the Pharmaceutical Sector:

The objective is to meet a significant portion of local pharmaceutical needs, aiming for coverage exceeding 70%, and to focus on export expansion, particularly to African markets, strengthening partnerships with leading pharmaceutical countries is also essential.

7.1.4. Early Stage of Outsourcing in Algeria:

The pharmaceutical outsourcing sector in Algeria is still in its nascent stages, with only a few companies involved due to numerous internal and external obstacles.

7.2. Recommendations

To improve the state of industrial outsourcing in Algeria and leverage it for the development of the pharmaceutical industry, it is essential to:

7.2.1. *Encourage Industrial Partnerships and Technology Transfer:*

Foster industrial partnerships, facilitate technology transfer, build entrepreneurial networks, and increase focus on industrial outsourcing within the pharmaceutical sector to enhance integration and expand the industrial base.

7.2.2. *Invest in Research and Development:*

Ensure that investment in research and development is a key part of the strategy, encouraging academic research centers to boost competitiveness and innovation, and to support existing pharmaceutical companies to develop the industrial sector.

7.2.3. *Adopt a Specialized Investment Policy:*

Implement a targeted investment policy to promote and support investment projects in pharmaceutical manufacturing. This includes reforming the legal framework governing the industry, improving the organization and management of pharmaceutical companies, and streamlining the registration and approval processes for pharmaceutical products and medical equipment.

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