SCOPING GHANA PACKAGING SECTOR AND OPPORTUNITIES TO IMPROVE SUPPLY TO THE PHARMACEUTICAL MANUFACTURING SECTOR

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Uncovering Jobs and Economic Development Opportunities in the Packaging Sector in Ghana

The packaging sector in Ghana holds immense potential for job creation and economic development. Expanding and establishing local packaging facilities will create direct employment opportunities in manufacturing, R&D, and logistics.

This sector can reduce reliance on imports, stimulate local industry growth, and open export opportunities, enhancing Ghana's trade balance and economic growth. The government of Ghana has been actively supporting this sector through policies and incentives to create a conducive environment for industry growth.

By embracing these strategies and leverage on government efforts, Ghana can build a competitive pharmaceutical packaging industry that meets local demands and positions the country as a key player in the regional and global market.

Contents

List of Tables

v

List of Figures

Acronyms

AfCFTA	African Continental Free Trade Area
CAGR	Compound Annual Growth Rate
ECOWAS	Economic Community of West African States
EPA	Environment Protection Agency
ETLS	ECOWAS Trade Liberalisation Scheme
FDA	Food and Drug Authority
GMP	Good Manufacturing Practices
GoG	Government of Ghana
GSA	Ghana Standard Authority
HDPE	High-Density Polyethylene
KHPRC	Kantanka Herbal and Pharmaceutical Research Centre
LDPE	Low-Density Polyethylene
LiA	Lead-it Africa
M&E	Monitoring and Evaluation
MoH	Ministry of Health

NGO	Non-Governmental Organization
PET	Polyethylene Terephthalate
PM	Packaging Material
PMAG	Pharmaceutical Manufacturers Association of Ghana
PPP	Public -Private Partnership
PVC	Polyvinyl Chloride
RCPL	Royal Crown Packaging Limited
RFID	Radio Frequency Identification
SMEs	Small and medium-sized Enterprises
SoPs	Standard of Operations

Executive Summary

- Overview of the Market
- Methodology
- Key Findings
- Key Recommendations

Executive Summary

Overview of the Market

The Ghana pharmaceutical packaging market size was valued at **USD 92.85M** in **2023** and is expected to grow at a compound annual growth rate (CAGR) above 20% from 2024 to 2030. This growth is driven by an increased outlook for generic drugs, a rise in local production of pharmaceuticals and herbal medicines, upgrades in pharmaceutical-grade packaging materials used by herbal medicine manufacturers, and improvements in the regulatory framework by authorities. The enormous growth potential for the pharmaceutical sector is one of the primary growth factors for the pharmaceutical packaging sector.

The Packaging Sector in Ghana is part of the country's rapidly growing pharmaceutical sector. This growth is driven by an increase in local pharmaceutical production. The outlook is positive as the reliance on imported medicines and raw materials remains very significant. Thus, presenting a good opportunity for import substitution with local manufacturing.

Ghana presents significant opportunities. The Government aims to establish Ghana as the pharmaceutical manufacturing hub of West Africa. In this regard, a Ten-Point Industrial Transformation Plan is being implemented by the Government of Ghana, spearheaded by the Ministry of Trade and Industry (MOTI). One of the components of the Industrial Transformation Plan is the initiative to develop Strategic Anchor Industries, including the Pharmaceutical Manufacturing Sector.

Ghana's pharmaceutical sector is the second largest in the West Africa sub-region. Pharmaceutical products manufactured in Ghana have strong potential for growth in the domestic and export markets as the "Made in Ghana" pharmaceutical brand is perceived favourably in the region.

The critical interventions required to achieve government's objectives for the sector include how to economically integrate the packaging and the pharmaceutical manufacturing industries. It is the desire of government to favour local production of packaging materials for the pharmaceutical manufacturing industry to complete the transformative agenda to create jobs and attract investments. The political will to push this agenda is found in the aggressive industrialization policies of the government and the incentives being offered to investors to establish in Ghana. Promoting the domestic packaging sector is also a way to support the import substitution policies to conserve foreign exchange to stabilize the Ghana currency.

The Ghana pharmaceutical packaging market, valued at USD 92.85M in 2023, is expected to grow at a CAGR above 20% from 2024 to 2030. The government's vision is to make Ghana a pharmaceutical manufacturing hub in West Africa, supported by a Ten-Point Industrial Transformation Plan.

Methodology

The methodology for this Scoping of Ghana Packaging Sector and Opportunities to Improve Supply to the Pharmaceutical Manufacturing Sector involves a systematic and comprehensive approach to gather, analyse, and interpret data. This methodology ensures the reliability and validity of the research findings. The key components of the methodology include:

- Desk Research
- Primary Research including:
  - 48 Respondents to Online Survey
  - 80 hours of one-on-one Interviews with 65 Industry Experts
  - 2 Focus Group Meetings with joint attendance of 32 Experts
  - 1 Innovation workshop (Innov8) involving 64 multiple stakeholders including Regulators, Policy makers, Pharma and Herbal Manufacturers, Packaging Manufacturers and other Pharma interest groups to propose practical solutions to identified concerns.
- Data Analysis and Triangulation from Multiple sources
- Reporting, Validation & Dissemination

Key Findings

Packaging is an important cost centre in the pharmaceutical manufacturing industry. This summary provides a snapshot of the current state and outlook of the pharmaceutical packaging market in Ghana. Here are the key highlights from this market research:

1. Market Segmentation.

I. Importation vs Locally Produced:

Only 33% of the Local needs for pharmaceutical packaging materials are serviced by local suppliers. 67% of the market in 2023 were Imported showing huge opportunities for import substitution.

II. Material Types:

The market is segmented into plastics & polymers, paper & paperboard, glass, and metal including Aluminium.

III. Product Types:

It includes primary, secondary, and tertiary pharmaceutical packaging.

IV. End-Users:

Major end-users are 34 pharmaceutical manufacturing companies and over 300 Herbal Medicine Manufacturers with 138 registered under FDA already embracing pharmaceutical grade packaging materials.

IV. Dosage Forms:

Over 10 different dosage forms pull the demand for various packaging materials with the Oral liquids segment accounting for

the majority of the packaging materials on the market

2. Trends and Innovations

I. Sustainability:

There is a growing trend towards eco-friendly and sustainable packaging. This is primarily due to the gradual implementation of reduced taxes on materials deemed eco-friendly by the authorities.

II. Technological Advancements:

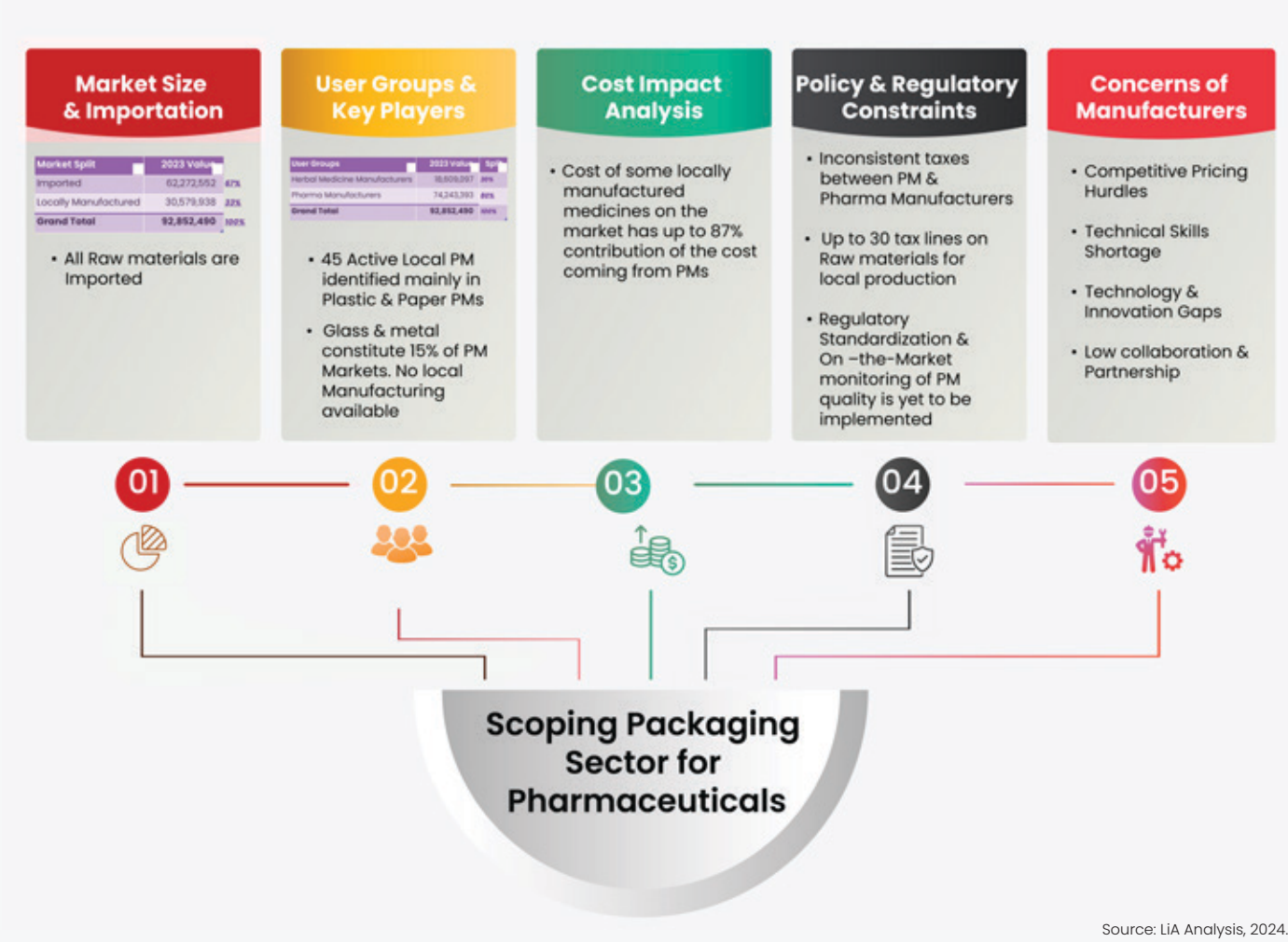
Innovations in smart packaging and anti-counterfeit technologies are gaining traction.

3. Challenges and Solutions

I. Challenges:

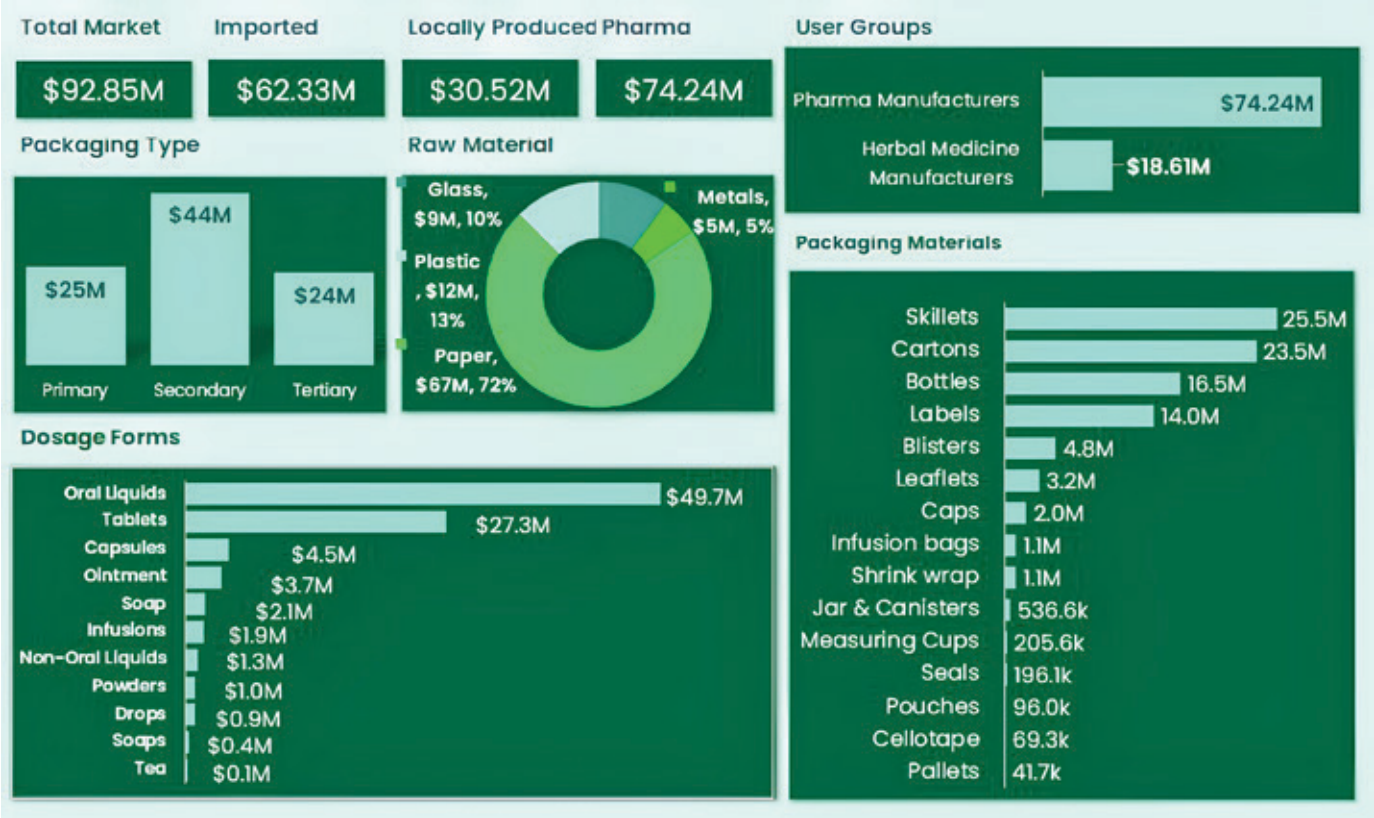
The market faces 12 critical challenges identified in this research.

Figure 6.1: Summary of Key findings.



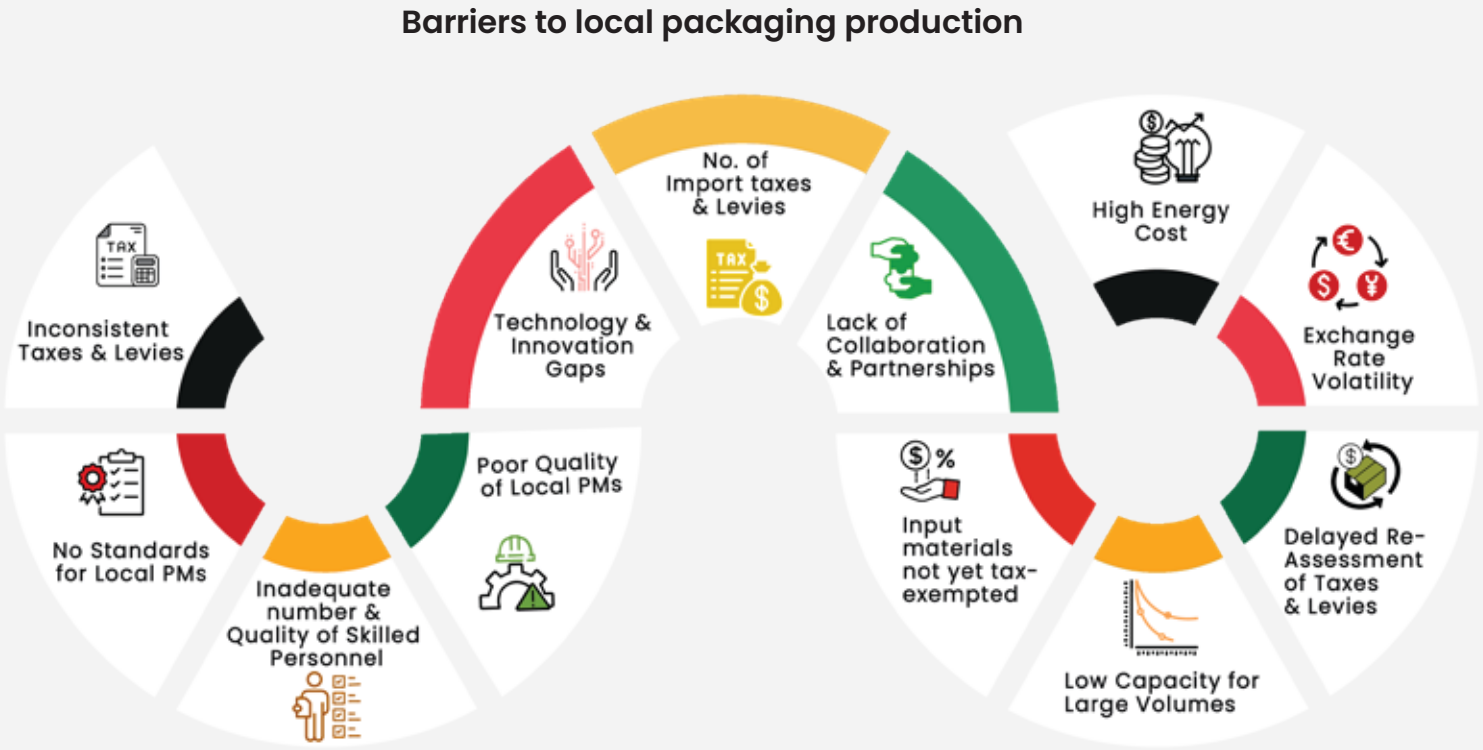
Source: LiA Analysis, 2024.

Figure 2.1: Market Size and Segments.



Source: LiA Analysis, 2024.

Figure 5.1: Barriers to Local Packaging Production



Source: LiA Analysis, 2024.

Key Recommendations

Recommendations have been categorized into 3 segments to drive strategic interventions for short-term, medium-term, and long-term opportunities.

01 Short term Opportunities

- Close gaps on Technical Skills Shortage
- Resolve Inconsistent Taxes & Levies
- Establish Standards for Local PMs

02 Medium term Opportunities

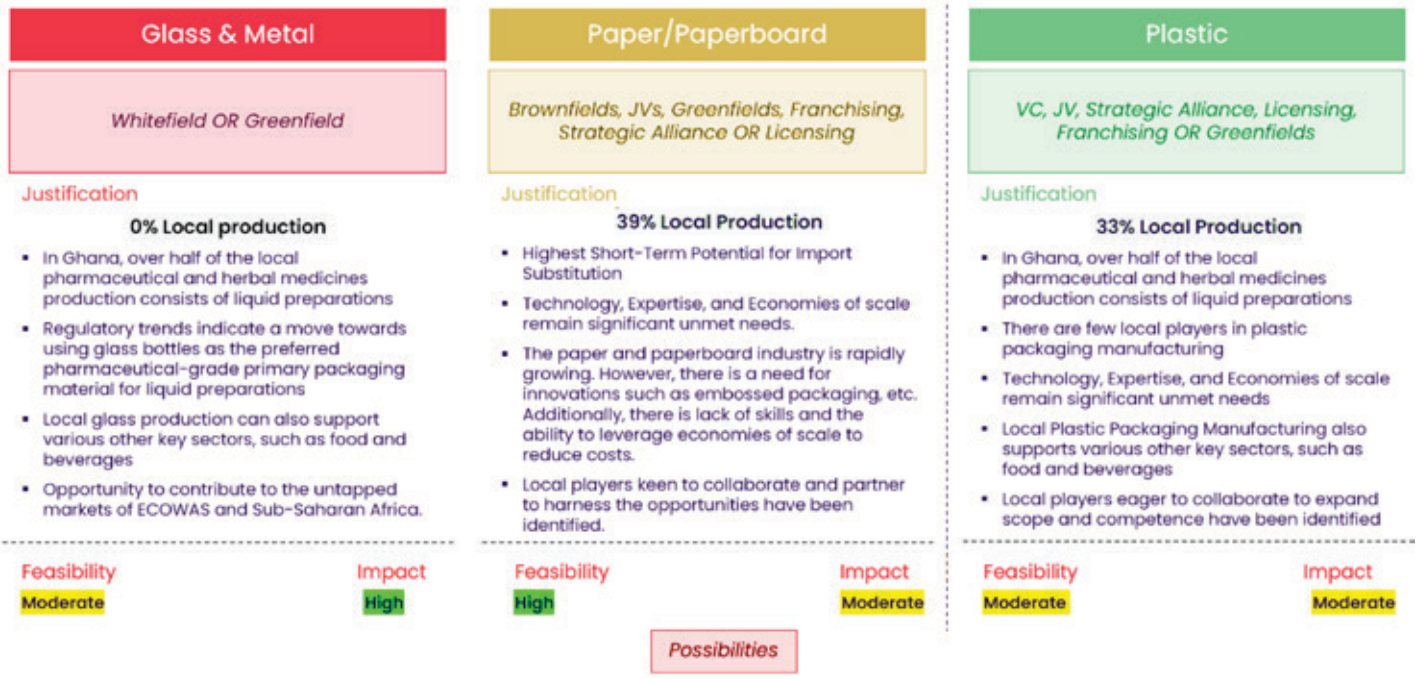
- Address Poor Quality of Local PMs
- Close the Gaps in Technology
- Manage the High Number of Import Taxes & Levies
- Facilitate Collaboration & Partnerships
- Address the Manufacturing Input Materials Not Yet Tax-Exempted

03 Long term Opportunities

- Improve the capacity for large volumes
- Resolve the delayed Re-Assessment of taxes & Levies
- Manage impact of high exchange rate volatility and high energy cost

There is need to Strengthen the Business Case for Early Harnessing of Opportunities

Figure 7.17 Investment Opportunity



Source: LiA Analysis, 2024.

Introduction

- Background
- Purpose of the Report
- Methodology

Chapter

01

This chapter outlines the background of the pharmaceutical manufacturing industry in Ghana. It also gives information about the scope, purpose as well as the methodology used in scoping the Packaging Sector.

1.1 Background

Ghana has ambition to become a fully integrated pharma manufacturing hub serving the 450 million[1] Ecowas population and wider 1.23 billion[2] Sub-Sahara Africa market. From the 1960s[3] when local manufacturing started in Ghana to having 34 Pharma manufacturing companies and 138 Herbal medicine manufacturers registered in 2024[4], local manufacturing base has been growing consistently. To further accelerate growth and drive the ambition of Ghana to become a fully integrated pharmaceutical manufacturing hub, the pharmaceutical packaging sector has been identified as a critical enabler in the drive towards this goal.[5]

The Packaging Sector in Ghana is a critical segment of the country's healthcare and pharmaceutical industries. As Ghana's economy continues to grow and its healthcare infrastructure expands, the demand for high-quality pharmaceutical packaging has risen significantly. This market encompasses a wide range of products, including primary packaging materials such as bottles, blister packs, vials, and secondary packaging like skillets and labels.

Pharmaceutical drugs are majorly offered in tablet, capsule, liquid, and powder forms. Various packaging types, including rigid bottles, standup pouches, flat pouches, sachets, and blister packs, are used for their packaging. Packaging companies are increasingly focusing on the incorporation of dispensing mechanisms, administration aids, sustainable material, tamper-evident properties, and counterfeiting measures into the packaging to enhance their functionality and safety.

The Packaging Sector serves several essential functions. It ensures the protection and preservation of medications, maintaining their efficacy and safety throughout their shelf life. Additionally, it plays a crucial role in compliance with regulatory standards, providing necessary information to healthcare providers and patients, and preventing counterfeiting.

Ghana aims to become a fully integrated pharmaceutical manufacturing hub for the ECOWAS and Sub-Sahara Africa markets with the packaging sector identified as a critical enabler to support this goal by ensuring high-quality , compliant and secure packaging solutions.

1.2 Scoping of Ghana Packaging Sector and Opportunities to Improve Supply to the Pharmaceutical Manufacturing Sector

The primary purpose of Scoping Ghana's Packaging Sector and Opportunities is to Improve Supply to the Pharmaceutical Manufacturing Sector to provide a comprehensive analysis of the potential market size, the current market dynamics, identify constraints, and outline potential opportunities for reducing costs and improving the supply-demand relationship between packaging suppliers and the pharmaceutical industry. This report aims to achieve the following objectives:

1. **Overview of Types of Packaging Materials**: Offer a detailed overview of the pharmaceutical packaging materials used in Ghana including volumes, values and segmentation by locally sourced and imported materials. The report also identifies the market size, growth trends, and key segments.

2. **Identify Key Players**: Highlight major players in the market, including manufacturers, suppliers, and distributors, and analyse their capacities and strategies.

3. **Overview of the Capacity of the domestic packaging sector**: Establish the capacity of the domestic packaging sector generally and identify high potential SMEs within the packaging industry that are motivated to diversify into products for pharmaceutical manufacturing sector.

4. **Regulatory & Policy Insights**: Identify the policy and regulatory constraints to competitively producing packaging products for local pharmaceutical manufacturing sector and provide recommendations. Examine the regulatory landscape governing pharmaceutical packaging in Ghana, detailing the standards and compliance requirements that impact the industry.

5. **Constraints faced by the domestic Packaging sector**: Establish the constraints faced by the local packaging manufacturers in their operations. Identify key challenges faced by the industry, such as supply chain inefficiencies and regulatory barriers, as well as opportunities for growth and improvement.

6. **Cost Impact Analysis**: Investigate the impact of packaging materials on the cost of domestically manufactured pharmaceuticals like tablets, capsules, syrup preparations, large and small volume injectables and others.

This research aims to provide a comprehensive overview of the packaging market serving the pharmaceutical industry in Ghana. The aim is to explore current trends, key players, regulatory environment, key challenges, opportunities, prospects and identify the various factors influencing the packaging market. Understanding these factors is essential for stakeholders looking to navigate and succeed in this vital industry.

7. **Concerns of Local Pharmaceutical Manufacturers**: Identify the concerns of the Local Pharmaceutical manufacturers about the services of the packaging companies they deal with and establish the reasons why it is so.
8. **Solutions, Recommendations and Partnership Framework**: Profer solutions to all identified challenges and offer recommendations to facilitate a partnership agreement between a domestic pharma and packaging manufacturer to explore import substitution on specific imported products.

By addressing these objectives, the report aims to equip industry stakeholders, including manufacturers, investors, development partners, policymakers, and healthcare providers, with valuable insights and data-driven analysis to make informed decisions and strategize effectively in the evolving packaging sector in Ghana.

The scope of this research encompasses evaluating a broad range of factors impacting the industry to provide a thorough understanding of the market dynamics.

1.3 Methodology

The methodology for Scoping Ghana's Packaging Sector and Opportunities involves a systematic and comprehensive approach to gather, analyse, and interpret data. This methodology ensures the reliability and validity of the research findings. The key components of the methodology include:

1. Research Design:

I. Descriptive and Analytical:

The study employs both descriptive and analytical research designs to provide a detailed overview of the market and to analyse underlying factors and trends.

2. Research Process:

I. Project Kick-off:

- **Set Up Project Team:** Set up work-plan and Align ways of working between research team and the sponsor's team.
- **Discussions:** In-depth review of learnings from previous research objectives, scope, methodology, time-line and challenges.

II. Desk Research:

- **Literature Review:** Review of existing literature, including industry reports, academic papers, and market analyses related to pharmaceutical packaging.

Figure 1.1: Research Process

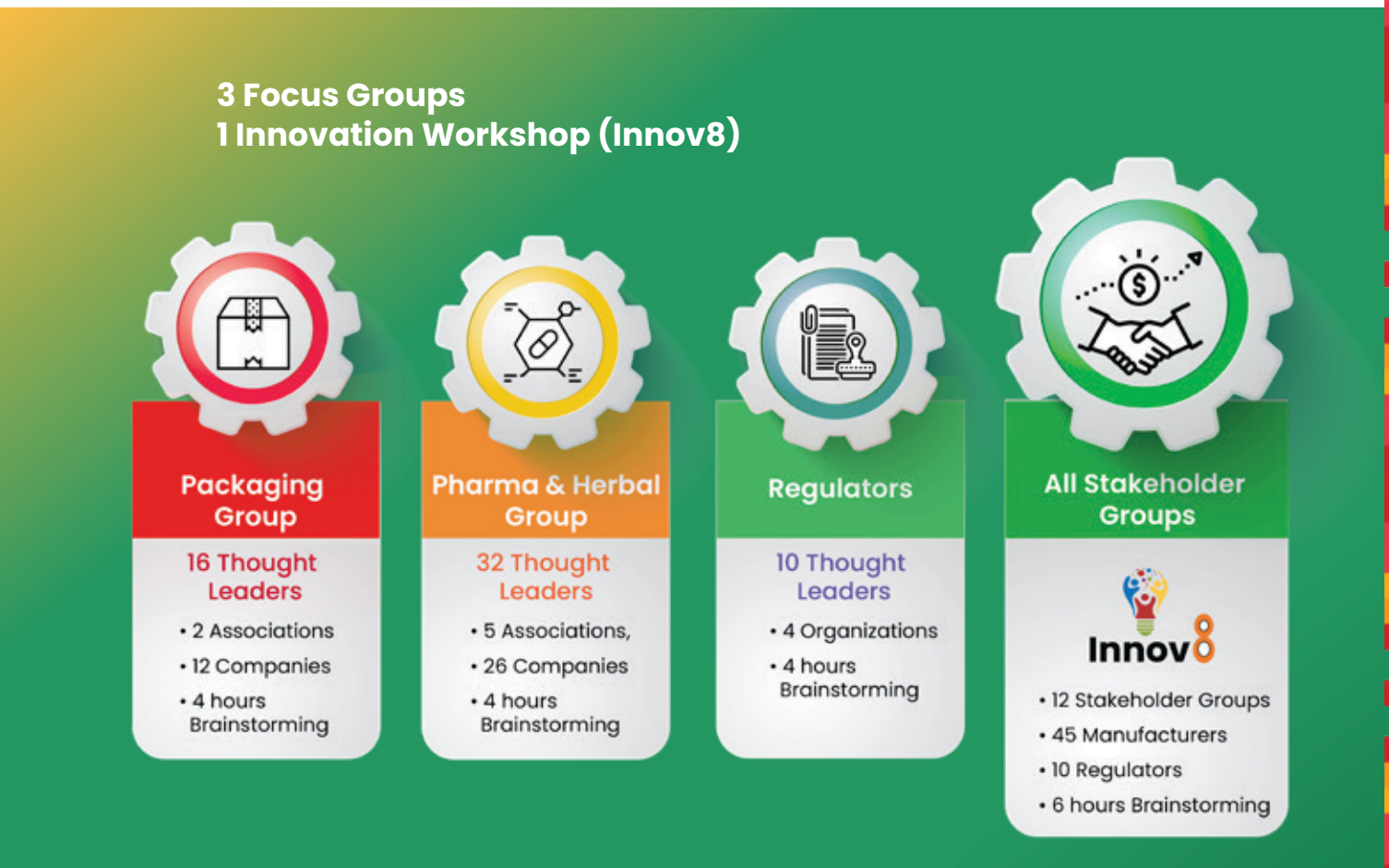
Source: LiA Analysis, 2024.

- **Industry Reports:** Analysis of reports from industry associations, market research firms, and government publications
- **Company Data:** Examination of annual reports, financial statements, and press releases from key companies in the market.

III. Primary Research:

- **Online Surveys and Questionnaires:** Structured surveys and questionnaires are administered to stakeholders such as pharmaceutical manufacturers, packaging suppliers, healthcare professionals, and regulatory authorities.
- In-depth interviews with key industry players and experts to gain qualitative insights and detailed information on market dynamics.
- Workshops & Focus Group Discussions:
- Use the design of the interactive sessions to organize focused group discussions to validate insights gathered from the surveys and individual interviews.
- Organize multi stakeholder workshops to confirm the key constraints as identified and solicit ideas on how to profitably navigate the key hurdles as identified.

Figure 1.2: Design of Workshop & Focus Group Engagement



Source: LiA Analysis, 2024.

iv. Data Analysis & Reporting:

- **Quantitative Analysis:**
  - Statistical tools and software are used to analyse numerical data collected from surveys and questionnaires.
  - This includes techniques such as descriptive statistics, trend analysis, and market segmentation.
- **Qualitative Analysis:**
  - Thematic analysis of interview transcripts and open-ended survey responses to identify key themes, patterns, and insights.
- **Validation and Triangulation:**
  - Cross-verification of data through multiple sources to ensure accuracy and reliability.
  - Triangulation of findings from primary and secondary data to enhance the robustness of the research conclusions.
- **Reporting**:
  - Compilation of the research findings into a comprehensive report.
  - Presentation of data through charts, graphs, and tables for clear and effective communication of results.
  - Inclusion of actionable insights and strategic recommendations for stakeholders.

The methodology of Scoping Ghana Packaging Sector and Opportunities to Improve Supply to the Pharmaceutical Manufacturing Sector involves a systematic and comprehensive approach, including descriptive and analytical research designs, desk research, primary research through surveys, interviews, and workshops, to ensure reliable and valid findings.

Figure 1.3: Packaging Market Size Estimation Approach

The Top-down Approach and Bottom-up Methods have been applied to estimate and forecast the value and volumes of different types of packaging materials in Ghana.

The major players in the market have been identified through desk research and the volumes and values of different types of materials determined during the primary research.

All possible parameters that affect the markets covered in this research have been accounted for, viewed in extensive detail, verified through primary research, and analysed to get the final quantitative and qualitative data.

Secondary sources include annual reports, press releases, and investor presentations of companies; National Customs, Industry Association.

Where no hard data was available, models and estimates were used to produce comprehensive data sets.

Discussions with key opinion leaders (KOLs) and stakeholders to validate market estimates and get their insights in relation to trends, dynamics and competitive analysis.

Market Overview

- Definition, Segmentation and Outlook
- Industry Value Chain Analysis
- Ability of Domestic Pharma Packaging Sector
- Market Dynamics & Business Environment
- Regulatory Environment & Impacting Policies

Chapter

02

This chapter reviewed empirical studies related to the research objectives and presents an overview of key current papers on the packaging industry servicing the pharmaceutical industry.

2. Market overview

The packaging market in Ghana is part of the country's rapidly growing pharmaceutical sector. This growth is driven by an increase in local pharmaceutical production, a highly generalized market, and significant reliance on imported medicines and raw materials.

Market Size and Growth

As of 2023, Ghana's pharmaceutical wholesale market was valued at approximately $633 million[2] and the ECOWAS pharmaceutical market at $6.5 Billion[2] with a projection for continued growth at a CAGR of 8% between 2024 - 2030 in USD. Local pharmaceutical production, particularly in generics, is on the rise due to various sector interventions and improvements in domestic herbal medicine. The market is forecasted to reach GHS6.55 billion[1] (approximately $896 million) by 2030.

The packaging market servicing the pharmaceutical industry is estimated to be $92.85 Million as of 2023 representing 15% of the total pharma market in Ghana based on the outcome of this research.

A boost in the local manufacturing of pharmaceuticals in Ghana is also considered to have big potential for growth as it stands to gain from the 450 Million population ECOWAS market and the 1.23 billion population Sub Sahara Africa market through the ETLS and AfCFTA arrangements.

Local Production and Key Players

Local production accounts for about 30% of the market for finished pharmaceutical products[5], with 34 licensed local manufacturing facilities as of July 2024. Key players in the local pharmaceutical manufacturing industry include Letap Pharmaceuticals Ltd, DAS PLC, Ernest Chemist Ltd, Atlantic Life Sciences, Pharmanova, M&G Pharmaceuticals, Kinapharma, Amponsah Efah Pharmaceuticals, etc. These companies produce a wide range of products, including analgesics, anti-malarial drugs, antibiotics, antiretrovirals, antacids, antihistamines, dewormers, and nutritional supplements.

Import Dependency and Distribution

Despite the growth in local production, Ghana still relies heavily on imports for about 70% of its pharmaceutical needs. Major import sources include India, China,

the United Kingdom, France, and Germany, which collectively control about 90% of the import market. Out of this, India accounts for more than 60% and China accounts for about 20% of the imported pharmaceuticals into Ghana. Over 600 importers, including domestic manufacturers, public and private institutions, logistics and trading companies, and pharmacies, facilitate the distribution of pharmaceutical products across the country[6].

Packaging Market Dynamics

The growth in the pharmaceutical manufacturing sector has naturally led to an increased demand for pharmaceutical packaging. This demand encompasses a variety of packaging materials, such as blister packs, bottles, vials, ampoules and various secondary packages like Skillets, Labels, Leaflets etc. to ensure the safe, and effective distribution of medicines. The packaging market benefits from the overall growth in pharmaceutical sales and the emphasis on meeting international quality standards for both locally produced and imported medicines. Overall, the pharmaceutical packaging market in Ghana is poised for significant growth alongside the broader pharmaceutical sector, driven by increased local production, sustained import activity, and the need for high-quality packaging solutions to meet rising healthcare demands.[4]

Overall, the packaging market in Ghana is poised for significant growth alongside the broader pharmaceutical sector, driven by increased local production, sustained import activity, and the need for high-quality packaging solutions to meet rising healthcare demands.[4]

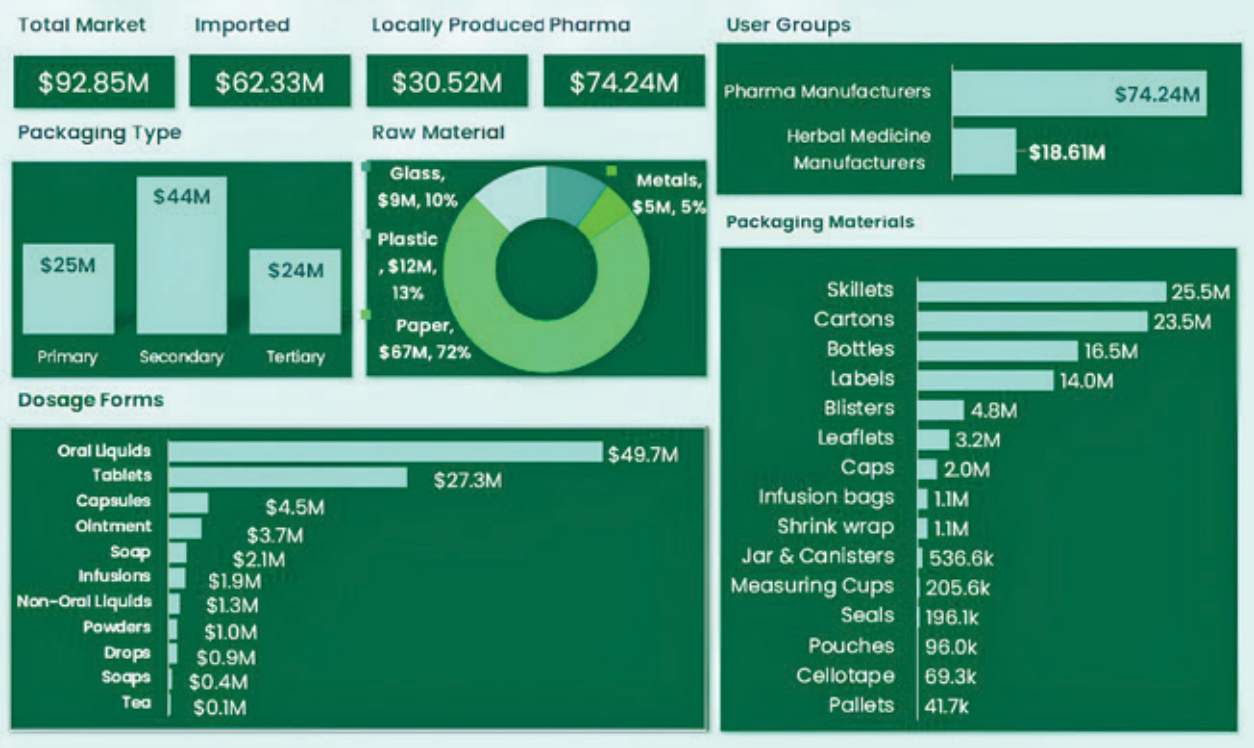
2.1 Definition, Segmentation and Outlook

Pharmaceutical Packaging is defined as the combination of components necessary to contain, preserve, protect & deliver a safe, efficacious drug product. This ensures that, at any point before the drug's expiration date, the dosage form remains safe, effective, and maintains its integrity.

The Packaging Market Segmentation in Ghana.

The packaging market servicing the pharmaceutical manufacturing industry in Ghana can be segmented using various criteria shown in the table below:

Figure 2.1: Market Size and Segments.



Source: LiA Analysis, 2024.

This research estimates the 2023 volumes of each segment as well as the cost impact on various dosage forms manufactured locally in Ghana. The detailed analysis is shown in Chapters three and four.

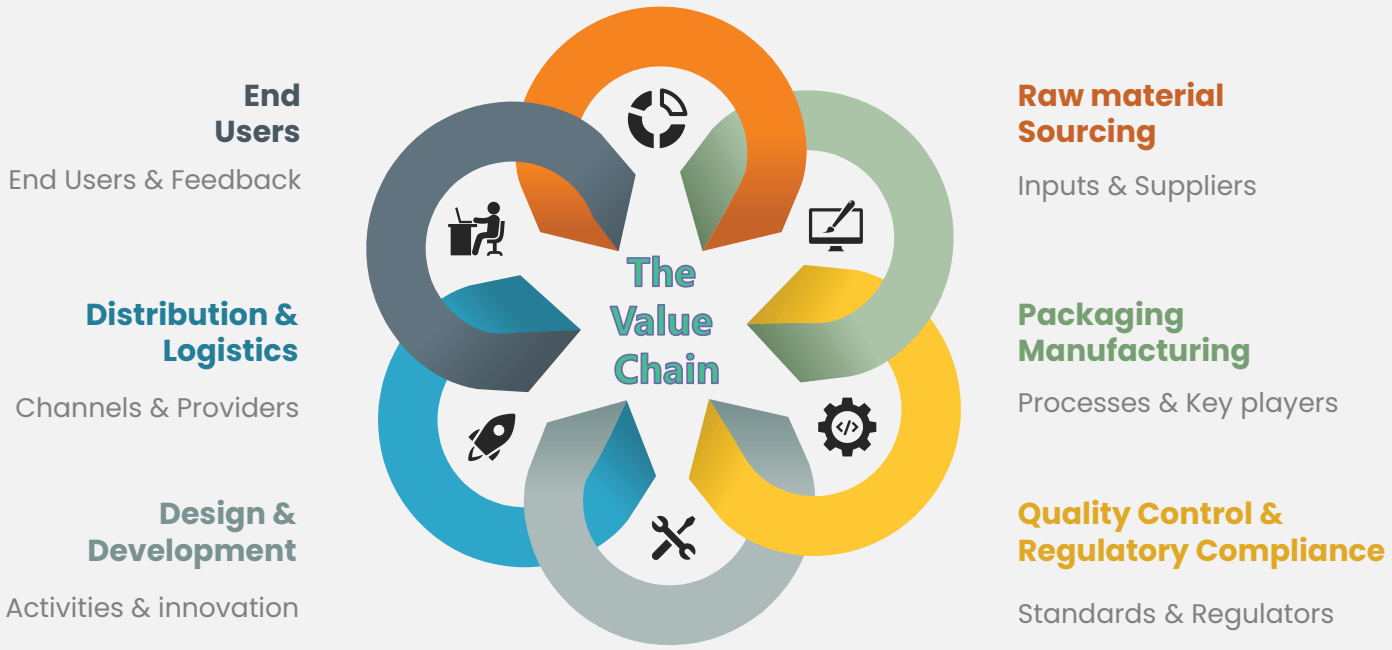
Packaging Market Outlook in Ghana

The Packaging market is forecasted by stakeholders to grow above 20% CAGR over the next 5-10 years. It was established that the following factors and market segments will be the key drivers of the growth:

- Expansion of drug formulations in Ghana like low volume injectables, vaccines with confirmed interest from some existing and potential local players
- 100% Local production of all required secondary packaging of paper/paperboard sources
- Technological advancements
- Cost Management
- Increasing demand for sustainable packaging

2.2 Industry Value Chain Analysis

Figure 2.2: Pharmaceutical Packaging Industry Value Chain



Source: LiA Analysis, 2024.

The packaging market servicing the pharmaceutical manufacturing industry in Ghana involves a comprehensive value chain that includes several stages, from raw material sourcing to the final distribution of packaged pharmaceutical products. Here is a detailed analysis of each stage in the value chain:

1. Raw Material Sourcing

I. Inputs:

- **Plastic Resins:**

  Common types include PET, HDPE, and LDPE used for bottles, blister packs, and containers. Low local capacity and limited use of this raw material by local packaging manufactures in Ghana. Very few players have capacity to produce various pharmaceutical grade of plastics. Opportunity exists to fully optimize different output of plastics for different dosage forms required by pharmaceutical manufacturers.

- **Glass:**

  Used for vials, bottles and ampoules due to its inert and impermeable properties. This is a white space in Ghana and indeed the entire ECOWAS market today as no local packaging manufacturer is currently producing this for domestic pharmaceutical manufacturers.

- **Metal:**

  Utilized for tubes and certain types of closures.

- **Paper and Paperboard:**

  Used for secondary packaging like cartons and boxes.

II. Suppliers:

International Suppliers and No local suppliers: The research confirmed that all raw materials for PM manufacturing are currently sourced internationally. Major import sources include countries like India and China for plastic resins, virgin papers, dyes and others.

2. Packaging Manufacturing

I. Processes:

- **Extrusion and Moulding:**

  Plastic resins are extruded and moulded into bottles, blister packs, and containers.

- **Blowing and Injection Moulding:**

  Used for creating plastic, glass bottles and vials.

- **Printing and Labelling:**

  Involves printing essential information on labels and packaging.

II. Key Players:

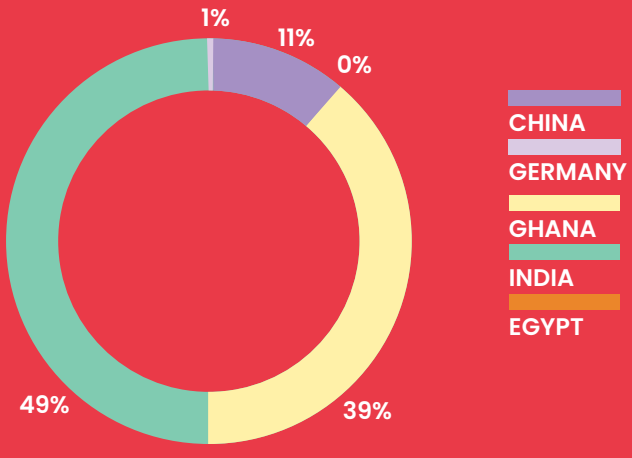
The key players are organized by the input raw materials and the type of packaging materials mostly demanded by the local pharmaceutical manufacturers.

- **Paper and Paperboard Converters:**

  This is by far the most organized group of the packaging manufacturers locally. The members of this group have the capacity to serve about 95% of the current needs of the local pharma manufacturers and have huge expansion capacity. However, based on the data collected from the Pharma manufacturers, only 39% of the local manufacturers needs in 2023 were serviced by local PM manufacturers'.

Raw Material Source	2023 Value (USD$)
China	7,445,921
Germany	45,000
Ghana	26,220,0007
India	32,883,210
Egypt	222,685
Grand Total	66,816,824

Table 2.1: Sources of Paper Pharmaceutical PM used in Ghana in 2023
Source: LiA Analysis: 2024.



There are broadly 2 sub-groups identified within the players namely:

a. Companies with established business of supplying the local needs for pharmaceutical packaging. They focus mainly on providing secondary and tertiary packaging materials like skillets, cartons, Labels, seals.

25 prominent players identified and listed below:

1. Fine Print Ltd.
2. Wala Africa Ltd
3. Flixo Hub Limited
4. Royal Crown
5. Geffour Global
6. Fon Packaging
7. Global Insight/Tema Cartons
8. G-pak Ltd
9. Monia Ghana Ltd
10. Jaykay
11. Ideas Print House Ltd
12. Mork Impression
13. Wyse print
14. Epac
15. Agbeve
16. Choco Herbal Industry
17. BLOWPLAST
18. AAA Paper Ltd
19. Sonapack Ghana Ltd
20. Mini Plastic Ltd
21. Alrayan Industries Company Ltd
22. Lesdy Company Ltd
23. Print Man
24. Shuotong Packaging Ghana
25. Sakoa Press Ltd.

A detailed assessment of their capabilities, current product offerings and markets served by these packaging firms are included in chapter three.

b. Companies with potential to serve the expanding local manufacturing sector.

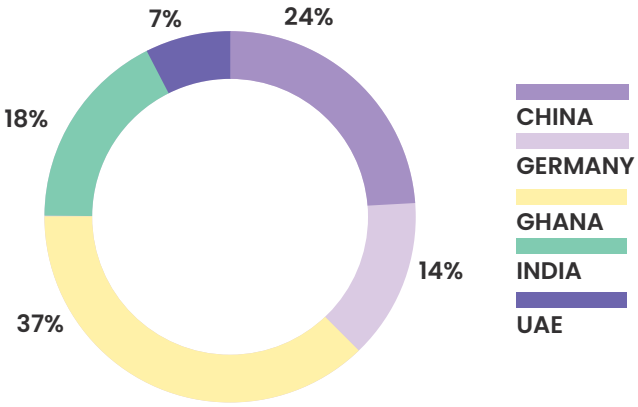
This group includes players like:

a. Ideas Printing
b. ePAC

- **Plastic Resin Molders**

Raw Material Source	2023 Value (USD)
China	2,766,399
Germany	1,616,084
Ghana	4,303,867
India	2,045,795
UAE	850,000
Grand Total	11,582,145

Table 2.2: Sources of Plastic Pharmaceutical PM used in Ghana in 2023
Source: LiA Analysis: 2024.



This is a fast-growing packaging segment with fewer players in this group. They have a high share of demand for packaging materials from local pharma manufacturers Up to 37% of industry needs are supplied locally. It is an emerging strong focus for packaging manufacturers in Ghana like:

1. Givers
2. Kantanka
3. Buabeng Authentic herbals
4. Qualiplast Ltd
5. Polytex Industries Limited

6. CPMR
7. Phylotec
8. Choco industry
9. Suzzy herbals
10. Health alert
13. KARMA 3BTN
14. Solak herbals
15. Greenfield
16. Agbeve herbal
17. Coliba ghana

An observed and emerging trend is also the diversification of the biggest pharma manufacturers into producing these packaging materials.

a. Letap
b. Katanka
c. Givers Herbal
d. Kinapharma

The players focus mainly on providing:

- Packaging materials for various dosage forms including tablets, capsules, syrups, and large volume injectables.
- Primary packaging materials like PET bottles, caps, blisters,
- Secondary packaging materials like Cello tapes, Shrink wrap, and infusion caps.

3. Quality Control and Regulatory Compliance

I. Standards:

- **Good Manufacturing Practices (GMP):**

  Ensures that products are consistently produced and controlled according to quality standards.

- **Regulatory Bodies:**

  The following regulators were confirmed to play different roles in Quality Assurance and Standardization of PMs in Ghana:

  - **FDA** The Food and Drugs Authority (FDA) of Ghana regulates and monitors the quality of pharmaceutical packaging.
    - **Observation:** Contents and labels of pharmaceutical products are thoroughly inspected and monitored rather than the quality of the packaging materials.
  - **GSA:**

    The Ghana Standard Authority is responsible for setting standards for pharmaceutical packaging materials in Ghana. The research confirms no current standards exist for pharmaceutical PMs in Ghana. There is currently an initiated collaboration between the FDA and GSA to define the standards for pharmaceutical PMs. The current role of GSA in PM manufacturing is limited to standardisation of equipment for the manufacturers. Some manufacturers also employ the services of GSA as a vendor to test new specifications for their PMs.
  - **EPA:**

    The Environmental Protection Agency's regulation and protection of the environment include regulating the impact of PM production processes on carbon emissions and the overall environment. EPA imposes higher tariffs and levies on PM materials assessed to be negatively impacting on the environment.

The value chain for the packaging market is built around sourcing of raw materials like plastic resins, glass, metal, and paper internationally. Local manufacturing processes include extrusion, molding, and printing, with key players focusing on paper and paperboard packaging.

I. Processes:

- **Testing and Validation:**

  Packaging materials and processes are rigorously tested to meet safety and efficacy standards.

- **Certification:**

  Packaging facilities often require certification to comply with international and local regulations.

4. Packaging Design and Development

I. Activities:

- **R&D:**

  Research and development activities to innovate and improve packaging solutions. This is usually driven by demands from Local pharma manufacturers to differentiate and or improve on the packaging materials for their products.

- **Design:**

  Creating packaging that ensures product protection, user convenience, and regulatory compliance.

- **Sustainability:**

  Emerging and low focus on eco-friendly packaging solutions by the different players driven mainly by Government incentives. Up to 30% of respondents to online survey consider Ghana consumers are neutral in demanding eco-friendly PMs. The manufacturers confirm that Government apply higher taxes on materials assessed by the Authorities as non-ecofriendly. This is beginning to drive the awareness of manufacturers to use eco-friendly materials which attracts lower taxes.

II. Innovations:

- **Tamper-evident Packaging:** Enhances security by showing visible signs if tampered.
- **Child-resistant Packaging:** Ensures safety by preventing children from accessing the medication.
- **Smart Packaging:** Incorporates technologies like QR codes for better information dissemination and tracking.

5. Packaging Design and Development Channels:

I. Domestic Distribution:

Most packaging manufacturers are located in Accra and Tema where the local pharma manufacturers have their factories. This makes domestic deliveries relatively smooth.

II. International Trade:

Majority of the packaging materials used in the local pharma manufacturing industry are imported.

III. Logistics Providers:

- **Third party Providers:**

  Third-party logistics companies handle the transportation and distribution of packaging materials.

- **Company Pick up:**

  Some local pharma manufacturers confirmed the use of their own trucks to pick up from the packaging manufacturers. Either because of close proximity and or intentional efforts to support the packaging manufacturers' business model.

6. Retail and End-User Delivery

I. End-Users:

- **Local Pharma Manufacturers:**

  Producers of pharmaceutical products are the main customers served by the packaging manufacturers. Based on the outcome of this research, Up to 80% of pharmaceutical grade packaging materials are consumed by the local Pharmaceutical manufacturers today.

- **Herbal Medicine Manufacturers:**

  These users contributed about 20% of the demand for pharmaceutical grade packaging materials in 2023. This user group consist of a lot of small players and the Experts put the number well above 300 players with 138 players registered under FDA. They represent a huge opportunity for future growth of the demand for pharmaceutical grade packaging materials especially as the value chain around regulation improves.

- **Pharmacies and Hospitals:**

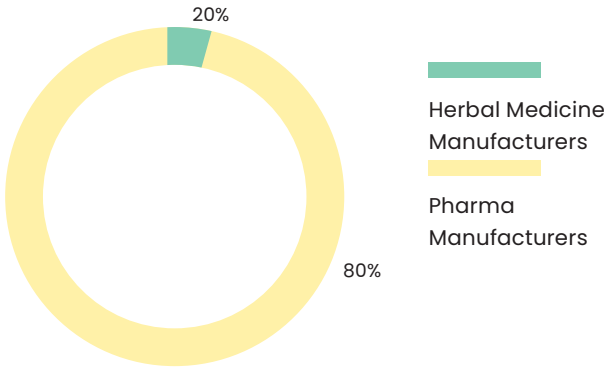
  Major end-users of packaged pharmaceuticals.

- **Consumers:**

  Final users of the packaged products, emphasizing the need for user-friendly and informative packaging.

User Groups	2023 Value (USD$)
Herbal Medicine Manufacturers	18,609,097
Pharma Manufacturers	74,243,393
Grand Total	92,852,490

Table 2.3: 2023 Pharmaceutical PM Split by End User Groups
Source: LiA Analysis: 2024.



II. Feedback Loop:

- **Market Feedback:**

  Information from local pharma manufacturers is used to improve packaging design and functionality.

- **Observation:**

  Majority of packaging manufacturers are yet to develop feedback loops with other end-users of their products including Pharmacies, hospitals and consumers.

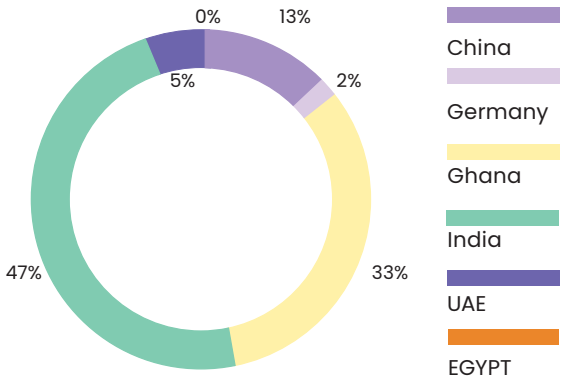
The packaging market in Ghana is an integral part of the pharmaceutical value chain, ensuring the safety, efficacy, and accessibility of medicines. The value chain involves multiple stages, from raw material sourcing to the final delivery of packaged products, with opportunities for growth driven by local production increases, regulatory compliance, and technological innovations.

2.3 Ability of Domestic Pharma Packaging Sector

The ability of the domestic packaging market in Ghana is influenced by several factors, including the scale of local pharmaceutical production, import volume, regulatory requirements, and technological advancements in packaging. Here are key aspects of the market capacity:

Raw Material Source	2023 Value (USD S)
China	11,613,930
Germany	1,661,084
Ghana	30,579,938
India	43,721,493
UAE	5,053,360
Egypt	222,685
Grand Total	11,582,145

Table 2.4: 2023 Sources of Pharmaceutical PM used in Ghana
Source: LiA Analysis: 2024.



Local Pharmaceutical Packaging Production

- **Market Share:** Local production accounts for about 33% of the pharmaceutical packaging market in Ghana. This includes approximately 45 Packaging manufacturing facilities producing mainly secondary and tertiary packaging materials and a few primary packaging materials.
- **Growth Projections:** With the pharmaceutical market in Ghana expected to grow at a CAGR of 8.0% in local currency terms, the demand for packaging is projected to increase correspondingly[2]. **The local PM production is forecasted to quadrupled over the next 2 – 3 years** based on the increasing willingness of local Pharma and Herbal manufacturers to embrace import substitution.

Import Dependency

- **Import Volumes:** Ghana imports about 70% of its pharmaceutical needs, significantly driving the demand for pharmaceutical packaging to ensure safe transportation and storage. Up to 82% of the PM needs of the local Pharma and Herbal manufacturers are imported
- **Top Import Sources:** Major import countries for PMs include India, UAE, China and Germany.

Packaging Material and Technology

- **Packaging Materials:** The market includes various materials such as plastic (PET, HDPE, LDPE), glass, metal inclusive of Aluminium, and paper and paperboard. Each type of material serves different

packaging needs, from primary packaging like blister packs and bottles to secondary packaging like cartons and boxes. All raw materials are imported, and the production activities are limited to plastic molding and paper or paperboard converting. Design and production of all other materials are imported.

- **Technological Advancements:** Innovations such as label embossment, laminated vs glossy finishing, tamper-evident packaging, child-resistant packaging, and sustainable packaging materials are becoming more prevalent, enhancing the capacity and capability of the market. Majority of these technological advancements represent areas of opportunities for local packaging manufacturers as the current local production capacity is rather low.

Regulatory Compliance

- **Standards and Regulations:** Adherence to international and local standards ensures the quality and safety of pharmaceutical products, necessitating advanced packaging solutions that meet regulatory requirements.
- **No or Low Capacity:** The regulation of the quality of the packaging materials beyond the information on the label represent opportunities for quality improvement in PM.

Market Capacity and Output

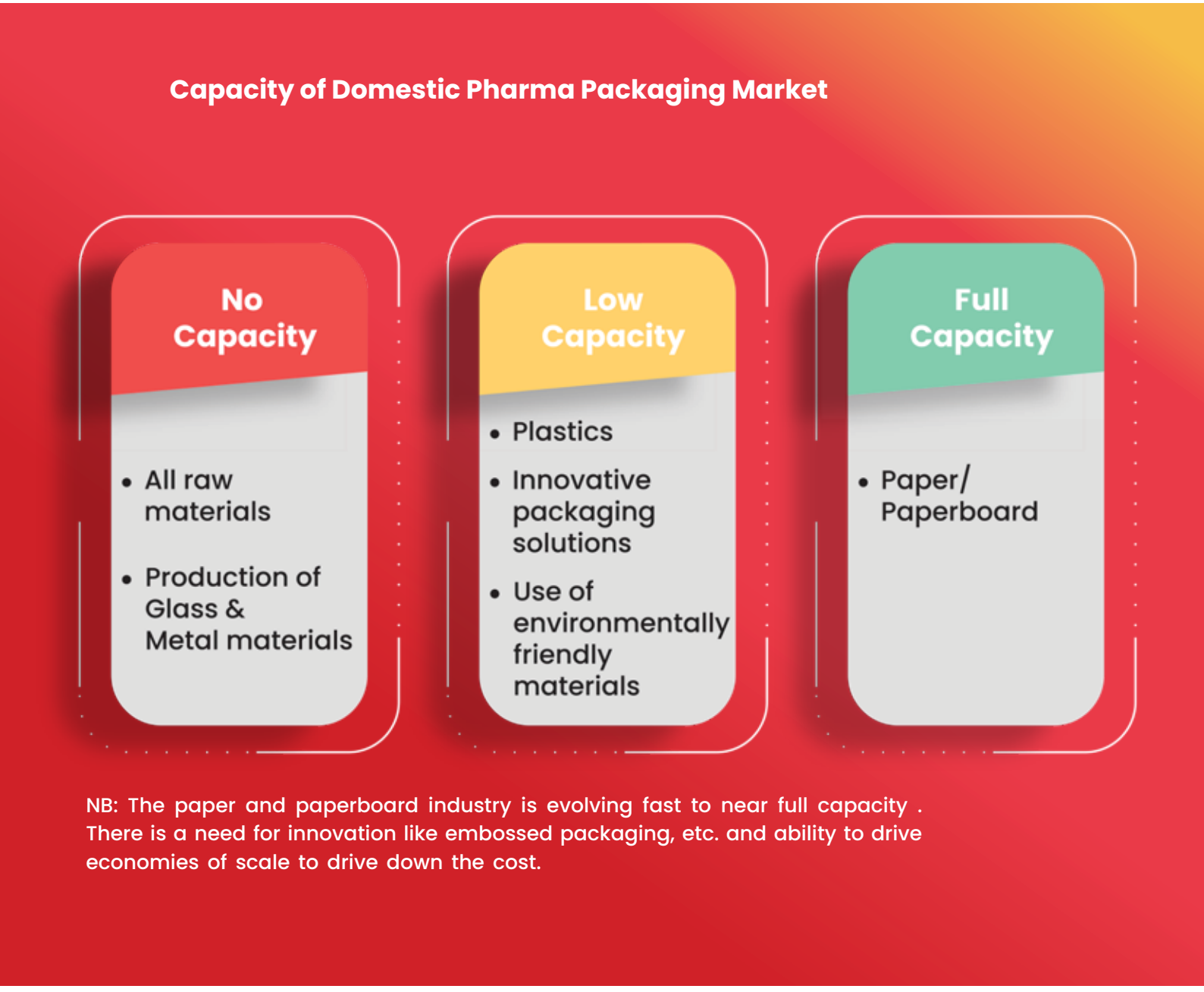
- **Packaging Capacity:** Given the combined influence of local production and substantial import volumes, the packaging market's capacity is robust. Local manufacturers not only package their products but also import and package foreign pharmaceuticals, contributing to a well-established packaging sector.
- **Whitespaces:** The following represent existing no capacity with the local packaging manufacturers in Ghana and also within the ECOWAS sub-region and most part of Sub-Sahara Africa.
    - Raw materials for all types of packaging materials.
    - Local moulding or conversion for all types of packaging materials except paper and paperboard materials.

Infrastructure

- **Specialized demand from Local Pharma Manufacturers:** Based on the specifications of the machines of the local pharma manufacturers, there are specific needs to be met by type of infrastructure and equipment acquired or used by the local packaging manufacturer which represent a significant area of opportunity today.
- **Infrastructure:** The infrastructure for pharmaceutical packaging includes state-of-the-art facilities that cater to both local production and import needs, ensuring compliance with safety and regulatory standards.

Overall, the capacity of the domestic packaging market in Ghana is considerable, driven by a combination of growing local production, substantial import volumes, and adherence to stringent regulatory standards. This creates a dynamic and expanding market, poised for further growth in the coming years. The table below summarizes the capacity of the local packaging market into 3 categories.

Figure 2.3: Capacity of Domestic Pharma Packaging Market



NB: The paper and paperboard industry is evolving fast to near full capacity . There is a need for innovation like embossed packaging, etc. and ability to drive economies of scale to drive down the cost.

Source: LiA Analysis, 2024.

2.4 Market Dynamics & Business Environment

The packaging market in Ghana is influenced by various dynamic factors, including economic conditions, regulatory frameworks, technological advancements, and market demand. Understanding these dynamics and the broader business environment is crucial for stakeholders in the industry.

MARKET DYNAMICS

1. **Economic Growth and Healthcare Spending**
    - **Economic Growth:** Ghana has experienced steady economic growth, which supports the expansion of its healthcare sector. As the economy grows, there is increased investment in healthcare infrastructure and services.
    - **Healthcare Spending:** Rising healthcare expenditures, driven by both government initiatives and private sector investments, boost the demand for pharmaceuticals and, consequently, pharmaceutical packaging.

2. **Regulatory & Policy Environment**

    I. **Tax Policies:**

    4 major observations were confirmed by all stakeholders interviewed:

    - **Tax Exemption Incentives for Manufacturers:** Some Input raw materials are exempted from some Taxes and Levies. Appendix 1 contains the approved list from Government. Some important input materials used by Packaging manufacturers are not yet included on this list.
    - **Inconsistent Taxes and Levies:** Raw materials imported by local packaging manufacturers and herbal manufacturers are taxed while the semi-finished packaging materials imported by local Pharma manufacturers are exempt from tax.
    - **Multiple Taxes and Levies:** The tax regime on imports involves up to 20 – 30 multiple tax lines shown in the sample analyses below:

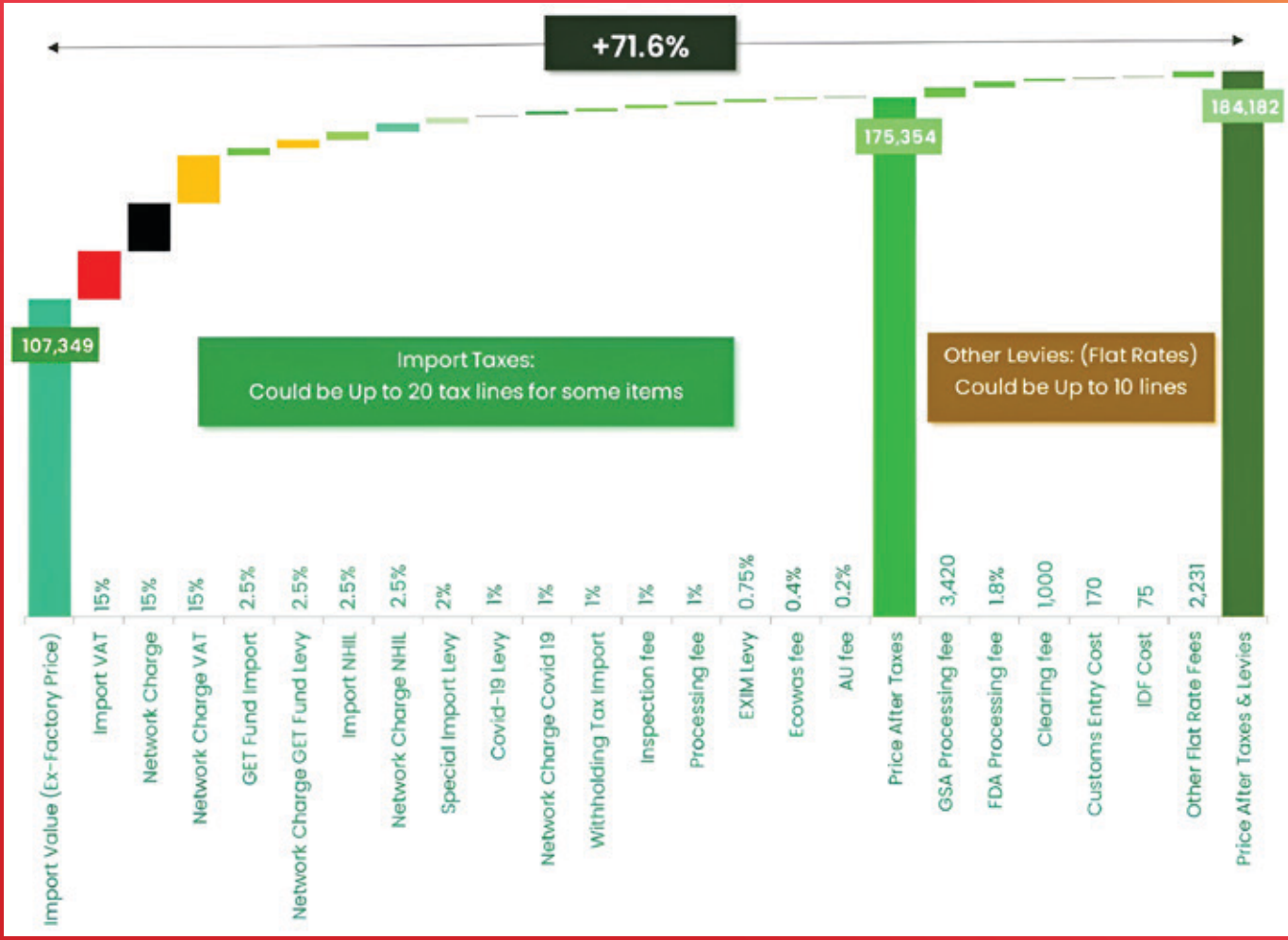
Ghana's packaging market is bolstered by steady economic growth and rising healthcare spending, but faces challenges with inconsistent tax policies and multiple levies on imported raw materials, impacting local manufacturers.

Taxes & Levies on Import of Packaging Raw Materials are high and many.

Figure 2.4: Sample Taxes & Levies paid on Import of Packaging Raw Materials

Import Value / CIF : 107,348.61
Currency : USD

Exchange Rate : 11.891
Date : 1/11/2023



Source: LiA Analysis, 2024.

The tax regime on imports involves up to 20 – 30 multiple tax lines.

- **Multiple Taxes and Levies:** The tax regime on imports involves up to 20 – 30 multiple tax lines shown in the Figure 2.4.
- **Delayed Re-Assessment of Taxes and Levies:** Some manufacturers confirmed that the Government's approach of re-assessing taxes and levies paid in the previous 3-5 years window poses significant hurdles to business planning.
- **Regulatory Standards:** The Food and Drugs Authority (FDA) of Ghana regulates pharmaceutical packaging, ensuring compliance with international standards to guarantee the safety and efficacy of medicines.
- **Quality Assurance:** Strict quality control measures and adherence to Good Manufacturing Practices (GMP) are mandatory, influencing the packaging processes and materials used.

3. Technological Advancements

- **Innovative Packaging Solutions:** Advances in packaging technology, such as label embossment, tamper-evident packaging, child-resistant features, and smart packaging, are becoming more prevalent. These innovations enhance product safety and user convenience.
- **Sustainability**: Ghana's packaging market faces challenges with multiple taxes and delayed reassessment of taxes and levies. Adherence to regulatory standards and quality assurance are overseen by the FDA. Technological advancements and sustainability trends are emerging, but local manufacturers have yet to fully embrace them.

4. Market Demand and Supply Chain

- **Local Production vs. Imports:** While local pharmaceutical production is increasing, Ghana still relies heavily on imports to meet its pharmaceutical needs. This dual dependency affects packaging demand patterns.
- **Supply Chain Resilience:** The reliability of the supply chain, including the availability of raw materials and the efficiency of logistics and distribution networks, significantly impacts the market.

BUSINESS ENVIRONMENT

1. Competitive Landscape

- **Key Players:** The market features various plastic and paper packaging manufacturers. The biggest players are Tema cartons, Jay Kay industries, Gpak, Fine prints, Fon Packaging etc.
- **Market Share:** Local manufacturers cover approximately 33% of the market, with the rest dominated by imports. This creates opportunities for local packaging companies to expand their market share within the country and even much more in the Ecowas and SSA region leveraging the regional protocol.

Ghana's packaging market faces challenges with multiple taxes and delayed reassessment of taxes and levies. Adherence to regulatory standards and quality assurance are overseen by the FDA. Technological advancements and sustainability trends are emerging, but local manufacturers are yet to fully embrace them.

2. Investment Climate

- **Regional Protocol:** To reduce the over-reliance on the global supply chain, there is a strong drive to promote operationalization of the newly established new trade bloc AfCFTA, and the expansion of the ECOWAS trade bloc re: ETLS.
- **Government Initiatives:** The Ghanaian government has been supportive of the pharmaceutical sector through policies that encourage local production and investment in healthcare infrastructure. The Packaging Manufacturers are yet to take advantage of these policies to drive exemption of duties on importation of raw materials used by them which is creating distortion and making them less competitive compared to imported pharmaceutical packaging materials that are exempted from duties. Similarly, The GIPC's openness to negotiate additional incentives for local manufacturers is yet to be optimized by the local players in the packaging manufacturing sector.
- **Foreign Investment:** There is significant interest from foreign investors, particularly from countries like India and China, which are major suppliers of raw materials and finished pharmaceutical products to partner with local players seize opportunities in the packaging sector.

3. Challenges and Opportunities

- **Challenges:** Key challenges include regulatory compliance, supply chain disruptions, and the need for continuous investment in advanced packaging technologies.
- **Opportunities:** The dream of making Ghana a pharmaceutical production hub for ECOWAS and Sub-Sahara Africa represent a huge opportunity and is well supported by the new regional protocols like AfCFTA & ETLS. Opportunities lie in expanding local production capacities, adopting innovative packaging solutions, and leveraging government support for the healthcare sector.

4. Consumer Trends

- **Awareness and Demand:** Increasing consumer awareness about the quality and safety of pharmaceuticals drives demand for high-quality packaging. There is also a growing preference for eco-friendly packaging options.
- **Market Expansion:** With the population growth and urbanization, there is a rising demand for pharmaceuticals, which in turn expands the market for pharmaceutical packaging.

The packaging market in Ghana is poised for significant growth, supported by economic development, increased healthcare spending, and technological advancements. The business environment is characterized by a mix of challenges and opportunities, with regulatory compliance, supply chain efficiency, negotiations for more incentives from government and investment in innovative packaging solutions being critical for success. Stakeholders must navigate this dynamic landscape to capitalize on the expanding market opportunities.

2.5 Regulatory Environment and Impacting Policies

The regulatory environment for the packaging market serving the pharmaceutical and herbal medicine manufacturers in Ghana is primarily governed by the Food and Drugs Authority (FDA), which enforces standards to ensure the safety, efficacy, and quality of pharmaceutical products and their packaging. Several policies and regulatory measures impact this market significantly.

KEY REGULATORY BODIES AND THEIR ROLES

1. **Food and Drugs Authority (FDA)**
   - **Regulatory Oversight:** The FDA is responsible for regulating the manufacturing, importation, exportation, distribution, and sale of pharmaceuticals, including the packaging materials used.
   - **Quality Control:** The FDA enforces Good Manufacturing Practices (GMP) and Good Distribution Practices (GDP) to maintain high standards in the pharmaceutical industry.
   - **Product Registration:** All pharmaceutical products, including packaging, must be registered with the FDA before they can be marketed in Ghana.

2. **Ghana Standards Authority (GSA)**
   - **Standards Setting:** The GSA collaborates with the FDA to develop and implement standards for pharmaceutical packaging, ensuring that materials and processes meet international benchmarks.

IMPACTING POLICIES AND REGULATIONS

1. **Import Duties on Raw materials for Packaging Manufacturers**

   All raw materials used for local production of packaging materials are imported and they are not exempted from import duties compared to the imported finished pharmaceutical packaging. This makes the local pharmaceutical packaging manufacturers less competitive.

2. **Good Manufacturing Practices (GMP)**
   - **GMP Compliance:** Pharmaceutical packaging manufacturers must comply with GMP guidelines, which cover all aspects of production, from raw materials to final products. This includes stringent quality control measures and documentation to ensure product safety and efficacy.
   - **Inspections and Audits:** Regular inspections and audits by the FDA can help ensure that packaging manufacturers comply with GMP standards.

FDA and GSA regulate pharmaceutical packaging standards in Ghana, ensuring quality and compliance through GMP and GDP enforcement. Import duties on packaging raw materials however continue to challenge local competitiveness.

3. **Labelling and Packaging Requirements**

- **Labelling Standards:** Packaging must include accurate and clear labelling, providing essential information such as the drug name, dosage, expiration date, and storage conditions. This is critical for ensuring patient safety and compliance with regulatory standards.
- **Tamper-Evident and Child-Resistant Packaging:** Specific regulations mandate the use of tamper-evident and child-resistant packaging for certain medications to enhance safety and prevent accidental ingestion.

4. **Import and Export Regulations**

- **Import Controls:** The FDA regulates the importation of pharmaceutical products and packaging materials to ensure they meet the required standards. Imported goods must undergo rigorous testing and inspection.
- **Export Compliance:** Local manufacturers exporting pharmaceutical products must comply with the regulatory requirements of the destination countries, which often involves adhering to international packaging standards.

5. **Environmental and Sustainability Regulations**

- **Sustainability Initiatives:** There is increasing regulatory pressure to adopt sustainable packaging practices. This includes reducing plastic waste, using recyclable materials, and minimizing the environmental impact of packaging production.
- **Waste Management:** Regulations concerning the disposal and recycling of pharmaceutical packaging materials are enforced to promote environmental sustainability.

CHALLENGES AND OPPORTUNITIES

I. **Challenges**

- **Import Duties:** The import duties paid on all raw materials paid by local packaging manufacturers makes locally produced packaging materials less competitive than the imported ones.
- **Regulatory Compliance:** Maintaining compliance with stringent FDA and international regulations can be resource-intensive for local manufacturers.
- **Supply Chain Disruptions:** Regulatory controls on imports can sometimes lead to delays and disruptions in the supply chain, affecting the availability of packaging materials.

The regulatory environment for the pharmaceutical market in Ghana is comprehensive, with a strong focus on ensuring the safety, efficacy, and quality of pharmaceutical products through stringent standards and compliance measures. Efforts are ongoing through FDA and GSA collaboration to further develop the regulatory environment for the packaging sector severing the pharmaceutical industry.

II. Opportunities

- **Government Support:** The Ghanaian government's support for local pharmaceutical production and healthcare infrastructure development presents opportunities for growth in the packaging sector.

- **Technological Advancements:** Innovations in packaging technology, such as smart packaging and sustainable materials, offer opportunities to enhance compliance and meet regulatory standards more efficiently.

Conclusion

The regulatory environment for the pharmaceutical packaging market in Ghana is comprehensive, with a strong focus on ensuring the safety, efficacy, and quality of pharmaceutical products through stringent standards and compliance measures. The FDA, in collaboration with the GSA, plays a pivotal role in regulating the industry. While there are challenges related to regulatory compliance and supply chain disruptions, there are also significant opportunities for growth driven by government support and technological advancements.

Competitive Landscape

- Overview
- Comparative Analysis of Locally produced Packaging vs Imported
- Volumes, Values and Types of Packaging Materials

Chapter

03

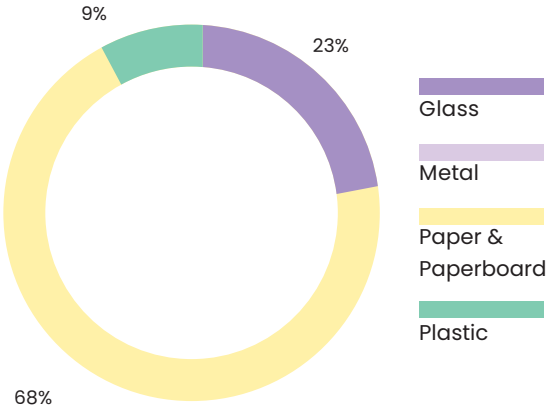
This chapter provides a comprehensive comparison and analysis of PMs produced locally vs Imported ones. It gives the profiles of some key players in the packaging manufacturing industry.

3.1 Overview of the Competitive Environment

The competition is mainly between a mix of local and international players, all vying to capture market share in a rapidly growing industry. As of 2023, the analysis of the total volumes of packaging materials used by the local pharmaceutical manufacturers reveals players from India contributes almost half (47%) of the total volumes of packaging materials used in Ghana. The competitive landscape is shaped by factors such as Pricing, technological innovation, strategic partnerships and others.

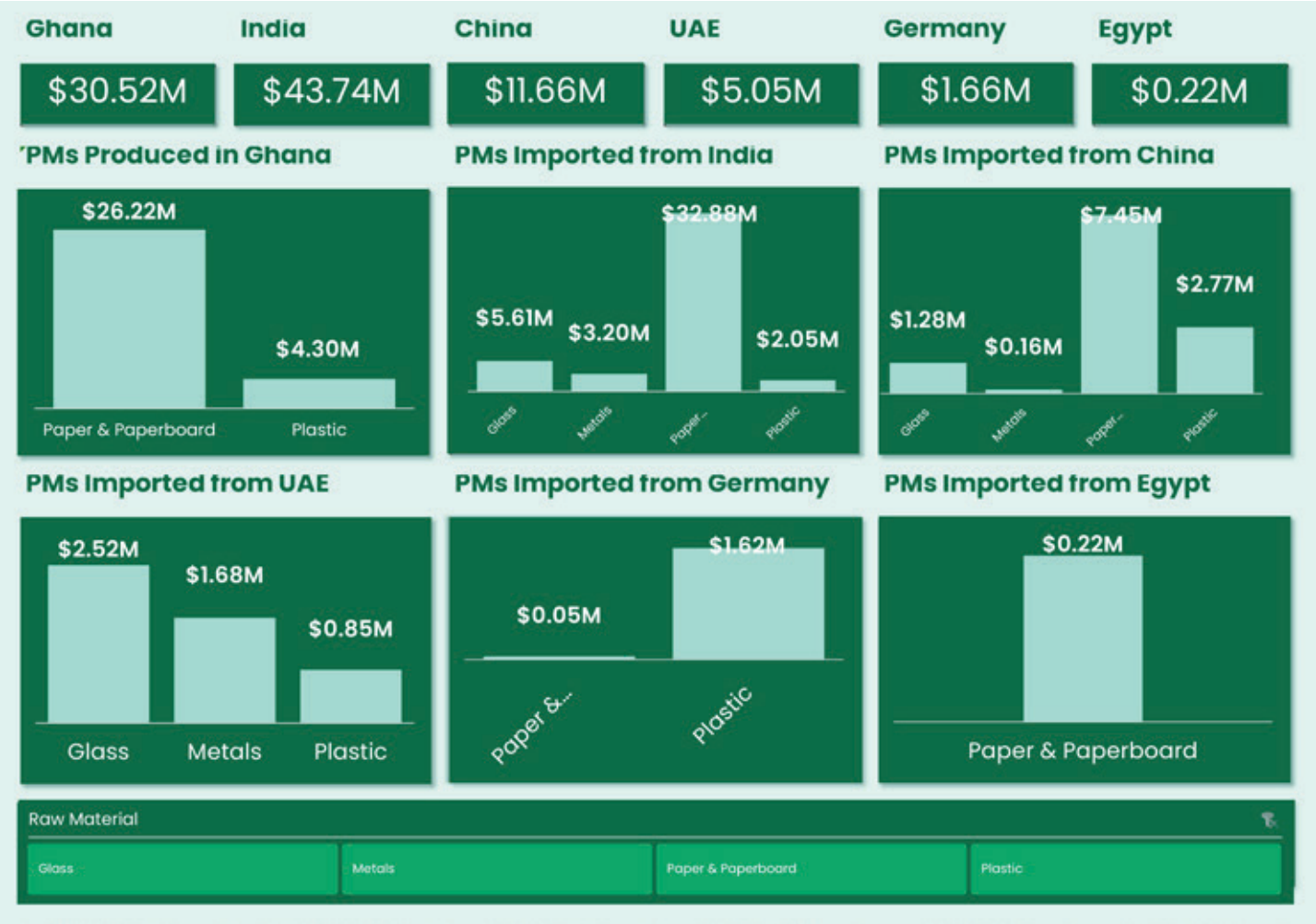
Local Pharmaceutical Packaging Production	
Raw Materials	**2023 Value (USD$)**
Glass	9,410,909
Metals	5,042,613
Paper & Paperboard	66,816,824
Plastic	11,582145
Grand Total	**92, 852,490**

Table 3.1: 2023 Pharmaceutical PM Split by Raw materials Source: LiA Analysis: 2024.



Paper and Paperboard materials account for 72% of the current market potential. The key players are mainly outside the country for all categories of raw materials for PMs.

Figure 3.1: Volume of pharmaceutical PM used in 2023 by Source Country



Source: LiA Analysis, 2024.

Profile of Key Local Players

1. Fine Print Ltd

Overview:

Fine Print Ltd Known as the "paper solution," specializes in pharmaceutical packaging. They produce a wide range of paper-based products, including paper sacks, Stationeries, tissues, and paper towels.

Production Capacity:

- Average production capacity: 15,000 sheets per hour for an offset machine.
- Speed: 370 meters per minute for the Flexor machine.
- Pharma boxes produced: Approximately one million per week.
- Labels produced: Over five million per week.
- Financial Worth: Currently valued at over 2 billion US dollars.
- Currently serving 13 pharma companies with over 50 skilled employees

Strengths:

- High-Quality Products:
- Fine Print maintains high standards, making their products difficult to beat in terms of quality.
- Fine Print does not give cheap prices just to produce substandard quality.
- Market Share:
- Holds 25% of the pharma packaging market.

Strategies:

- Quality Focus: Their motto centres around maintaining product quality.
- Client Growth: They actively support and help small clients.
- Using state of arts modern technology Heidelberg state of the art printer, Rotoflex slitter, high-speed laminator, Die-cutting / hot foiling, folder-gluer machine, lormbardi flexographic machine.
- Fine Print plans to double capacity is far advance

2. Jay-Kay Industries Overview:

Jay Kay Industries & Investments Ltd. is an Indian-owned company based in Tema, Ghana. Sole distributor for Technova Imaging Systems Pvt. Ltd. They operate across various product lines, including paper, labelling, and digital printing.
Key products for Pharma manufacturers: labelling, corrugated boxes, and Skillets for the pharmaceutical manufacturing industry.
Eco-Friendly Focus:
Jay Kay looks forward to emphasizing production towards more eco-friendly packaging materials, exploring alternatives to traditional plastics.

Strengths:

- Competitive Pricing: Known for offering the best price deals compared to other industry players.
- Quality Assurance: Maintains high-quality standards.
- Skilled Workforce: Employs three skilled personnel contributing to their success.

Strategies:

Technology-Driven Approach: Utilizes current technology, including an ERP system for efficient operations (quotation generation, label production, etc.).

3. Givers Packaging Ltd. Overview

Givers Herbal Centre is a prominent player in Ghana's herbal medicine industry. Founded with a commitment to quality and holistic wellness, they have established themselves as a trusted source for herbal products.

Givers Herbal Centre under the umbrella of Givers Industries Ltd., offers a diverse range of products including: Givers Herbal Mixture, Koo Capsules, P Capsules, Mineral Water, Packaging Solutions which are ergonomic and user-friendly bottles. These bottles are used for packaging both drinks and medicine. Notably, they produce PET (Polyethylene Terephthalate) and amber bottles, ensuring quality and suitability for various products. These bottles serve their own needs and those of approximately ten other herbal medicine manufacturers.

Givers Herbal Centre places a strong emphasis on quality. They adhere to precise grammes during the bottle-blowing process, ensuring consistent and reliable packaging. Their commitment to quality extends to all aspects of their operations, from herbal formulations to packaging materials.

Strengths:

- State-of-the-Art Infrastructure: Givers Herbal Centre operates with cutting-edge machinery. Their state-of-the-art equipment allows for efficient production, ensuring high-quality herbal products and bottles.

- Skilled Workforce: With a team of ten skilled individuals, Givers Herbal Centre benefits from expertise in herbal medicine, packaging, and production.
- In-House Bottle Production: By producing
- their own PET and amber bottles, Givers Herbal Centre exercises control over packaging quality and availability. This self-reliance enhances operational efficiency and reduces reliance on external suppliers.

Strategies:

- Quality-Driven Approach: Givers Herbal Centre's unwavering commitment to quality sets them apart. They prioritize safety, efficacy, and consistency in their herbal formulations and packaging. This strategy builds trust among consumers and other herbal medicine manufacturers.
- Timely Delivery: Having a fleet of trucks ensures on-time delivery of their products. Reliability in distribution strengthens their market presence.
- Givers Herbal Centre should continue exploring innovative packaging solutions. Sustainable and eco-friendly materials could be a focus.

4. EPAC Flexible Packaging Ghana Limited

Overview:

ePac Flexible Packaging Ghana Limited is a dynamic player in the packaging industry, specializing in digitally based flexible packaging solutions. Their mission is to empower brands of all sizes by providing exceptional stand-up pouches, lay flat pouches, and roll stock. Unlike many large-scale manufacturers, ePac focuses on serving smaller firms, recognizing their unique needs and challenges. Their commitment to sustainability sets them apart, as they produce environmentally friendly packaging that can be recycled, is degradable, and encourages reuse.

Strengths

- Quality and Customization: With a commitment to quality and agility, ePac provides brands with flexible packaging solutions that meet their unique requirements.
- ePac's strength lies in its ability to produce small quantities with a wide variety of designs. This flexibility caters to the diverse requirements of small businesses
- By offering multiple SKUs (stock-keeping units), they ensure that each brand receives packaging tailored to its specific product line.
- Sustainable Practices: ePac champions eco-friendly packaging. Their materials are designed for recyclability and minimal environmental impact.
- The compact design of their packaging optimizes space during transportation

and on retail shelves, benefiting both logistics and display efficiency.

- Features: ePac goes beyond aesthetics. They incorporate security features to protect products against moisture and tampering.
- Additionally, they provide certificates for customers who intend to export their goods, ensuring compliance with international standards.

Strategies

- ePac utilizes HP digital press technology: This cutting-edge approach allows for rapid customization, shorter lead times, and high-quality printing. Digital printing eliminates the need for traditional printing plates, making it cost-effective even for small production runs.
- ePac's strategy centres on capturing the under served market of small and emerging brands. By understanding their unique challenges, ePac builds lasting partnerships.
- Global Footprint: While relatively new in West Africa, ePac has a global presence. Their network of manufacturing plants spans multiple continents. In Ghana, they serve not only local clients but also neighbouring countries, reinforcing their commitment to regional growth.
- Continuous Innovation: ePac stays ahead by embracing digital technology. They continuously invest in research and development to enhance their offerings.

5. FON PACKAGING

Overview:

FON Packaging offers a range of products adhering to world-class standards. They produce both primary and secondary packaging including Folding Cartons, Custom Corrugated Packaging, etc., with over 30 years of experience in producing paper products,

- Market Share: Holds approximately 15% of the market
- Top Pharma Clients: Produces packaging for renowned pharmaceutical players, including Ernest Chemist, Pharma Nova, and Atlantic Pharma
- Daily Production Capacity: Capable of producing at least 250,000 boxes per day
- Workforce: Employs 20 to 30 skilled employees

Strengths:

- Experience: With three decades in the industry, FON Packaging benefits from extensive exposure and expertise.
- Market Share: Holding 15% of the market demonstrates their competitive position.
- Capacity: Their impressive daily production capacity ensures responsiveness to client demands.
- Quality Assurance: Competitive pricing without compromising product quality.

Strategies:

- Investment in Machinery: Sourcing modern and innovative machines from Taiwan (corrugated machines and flexor printers) contributes to their efficiency.
- Client-Centric Approach: FON Packaging's focus on top-tier pharma clients reflects their commitment to meeting specific needs.
- Quality-Price Balance: Balancing competitive pricing with quality ensures customer satisfaction.

6. Kantanka Plastic Packaging

Overview:

Katanka is an example of manufacturer creating a packaging business to serve an observed gap in the industry. Katanka was established by Apostle Emeritus Prof. Ing. Kwadwo Safo, is a beacon of herbal innovation and research. Their mission is to serve not only Africa but also the wider world with organic herbal products that promote healing and longevity. It is a place where ancient wisdom meets modern science—a harmonious blend of tradition and innovation.

KHPRC is transforming the landscape of herbal medicine in Africa through innovation, rigorous research, and an unwavering commitment to excellence. They are a team of passionate scientists, herbalists, and visionaries working together to harness the power of nature for our well-being.

Strength

- Uncompromising Quality: From sourcing the raw materials to manufacturing the final product, KHPRC maintains the highest standards.
- They are eco-friendly. KHPRC understands that nature gives generously, and it's our duty to reciprocate by minimizing our environmental footprint. So, these bottles complement the excellence of their products while being kind to Mother Earth.
- Advanced Security Measures in Packaging: Each packaging box includes a QR code—like a secret portal—linking directly to the KHPRC website.
- Security Features: Temper-Proof Hologram, Like a mystical seal, this hologram ensures that nobody meddles with your medicines before it reaches you.
- Embossed bottle and cap: Because branding matters, KHPRC has embossed image of the KHPRC logo on the Cap as embossed "KANTANKA" on the bottle

Strategies

- KHPRC offers a range of herbal products, each carefully crafted to address specific health needs. Whether it's immune support, anti-inflammatory properties, or overall wellness.
- KHPRC takes bottle production seriously. Their dedicated facility meticulously crafts the containers needed for their range of herbal remedies. But it's not just about aesthetics; it's about functionality and sustainability.

7. Royal Crown Packaging Limited (RCPL).

Overview:

RCPL sprouted its roots in the dynamic city of Accra, Ghana. The name itself—Royal Crown—conjures images of regal elegance and precision. Their vision is as bold as a lion's roar: to be the leader in the packaging industry, not just locally but globally. They are like the packaging equivalent of a world traveller with a suitcase full of ingenious solutions. They are the maestros of corrugated boxes and folding cartons. RCPL extends beyond Ghana, they have left their packaging footprints in Togo, Mali, Burkina Faso, Benin, and other Sub-Saharan countries.

Strategies:
RCPL supply a variety of standardized and custom cardboard box products to businesses nationwide and across the globe.
RCPL commitment to innovation. They have invested in cutting-edge machinery, allowing them to cut out unique designs requested by their customers.

- Expansive Productive Capacity: RCPL's corrugator machine flexes its muscles—it can produce for all of West Africa and beyond. They have also added two converting lines recently, turbo-charging their production speed.
- RCPL knows that customers are not cookie-cutter shapes. They are like fingerprints—unique and diverse. So, they stay flexible, adapting to different markets and demographics.

Strength:

- RCPL promises of excellence, innovation, and global reach. They are not just thinking inside the box; they are thinking beyond borders.
- RCPL's folding cartons are not just pretty faces; they are functional too. They cradle products, tell their stories, and make you go.
- Total Customer Service (TCS): RCPL's philosophy is simple: Total Customer Service. It's not just about boxes; it's about relationships.
- The Promise: Custom Packaging: RCPL's promise is to improve their clients' profits and productivity through "Custom Packaging." It's like they're tailoring a bespoke suit for your product. Their boxes come with secret compartments. They produce boxes with a holographic unicorn on the lid.
- Quality and Efficiency: RCPL delivers quality and efficient design right to your doorstep. They have mastered the art of teleporting boxes.

8. Plastex Ghana

Overview:

Plastex Ghana is a prominent player in the plastic industry within the country. They specialize in manufacturing plastic products, including containers, bottles, and other packaging materials.
Their product range caters to various sectors including the pharmaceutical industry, with a focus on quality and durability.

Strengths:

Quality Assurance: Plastex Ghana maintains stringent quality standards for its plastic products, ensuring reliability and safety.
Diverse Product Portfolio: Their offerings span a wide range, making them versatile for different industries.
Market Presence: Plastex has established a strong presence in the local market, contributing to its reputation.
Plastex's contribution to direct and indirect employment is significant, fostering economic growth and sustainability

Strategies:

- Innovation: Plastex continually explores innovative designs and materials to enhance their product offerings.
- Customer-Centric Approach: They prioritize understanding customer needs and tailoring solutions accordingly.
- Sustainability: Plastex focuses on eco-friendly practices, such as recyclable materials and waste reduction.

Annual Production:

Plastex Ghana, along with other members of the Ghana Plastic Manufacturers' Association (GPMA), produces approximately 492,865 metric tons of flexible plastics annually and about 1.69 million metric tons of rigid/furniture plastics.

Their production capacity plays a crucial role in meeting the plastic packaging needs of various industries in Ghana.

Industry Dependence:

Approximately 87% of industries within Ghana rely on plastic manufacturers like Plastex for their packaging requirements.

Again, industries in neighbouring countries such as Togo, Burkina Faso, Mali, and Niger also depend on Ghanaian plastic manufacturers for their packaging needs

9. Wala Africa Ltd

Overview:

Wala Africa Ltd is a Ghanaian-owned company dedicated to promoting good health through the use of natural herbs and spices. Since its inception in 2020, the company has gained a reputation for producing a variety of health-focused products, including juices, natural sweeteners, herbal teas, and liver health products. All their offerings are free from added sugars and artificial preservatives, ensuring they are produced under strict hygienic conditions.

Strategies

- Local Sourcing: Wala Africa Ltd sources its main ingredients locally, ensuring high-quality and fresh raw materials.
- Product Renaming: The company renames its products to appeal to different classes of individuals, thereby expanding its market share.
- Social Capital: The owner leverages personal networks and social capital to market and sell the products.
- Manual Processes with Future Expansion: While most production processes are currently manual, Wala

Africa Ltd plans to adopt modern technologies for herb preparation and packaging in the future.
- Research and Development: The company is keen on expanding its research and development efforts to improve existing products and introduce new ones.

Strengths

- High-Quality Ingredients: Wala Africa Ltd selects the best species of roots and herbs for their products, ensuring high efficacy and quality.
- Health Benefits: Their products, such as Wala After 40 and Wala Liver Restore, are well-known and accepted for their effectiveness, with numerous positive testimonials.
- Hygienic Production: The company maintains strict hygienic conditions during production, enhancing the safety and quality of their products.
- Skilled Personnel: Wala Africa Ltd employs three skilled personnel who have been trained to maintain high standards in production.
- Market Adaptability: By renaming products to suit different market segments, the company has successfully broadened its customer base.

Wala Africa Ltd's commitment to quality, health benefits, and strategic market positioning has enabled it to build a strong reputation and customer base. Their vision for future expansion and focus on research and development positions them well for continued growth and innovation.

10. QUALIPLAST Ltd.

Overview

- Established: 1973 in Accra, Ghana.
- Industry: Manufacture of high-quality industrial plastic packaging products.
- Products: Packaging for cosmetics, chemicals, pharmaceuticals, beverages, foods, mining, agricultural products, and household plastic ware.
- Vision: To continue being leaders in the plastic industry in Ghana and Africa by continuously improving performance and respecting values.
- Mission: Engage positively in communities, exemplify good corporate citizenship, and provide durable and aesthetically pleasing plastic packaging.

Strengths

- Innovation: Ability to design and develop custom moulds and source internationally.
- Technology: State-of-the-art technology for printing on plastics.
- Environmental Commitment: Recycles 98% of scrap material.
- Quality: High standards in product durability and aesthetics.
- Values: Leadership, passion, hard work, quality, efficiency, loyalty, and respect.

Strategies

- Continuous Improvement: Focus on enhancing performance and product quality.
- Community Engagement: Positive involvement in local communities.
- Environmental Excellence: Commitment to recycling and sustainability.

- Customer-Centric Approach: Custom mould design and international sourcing to meet customer specifications.
- Technological Advancement: Utilization of advanced technology for product enhancement.

11. KANE-EM Industries Ltd

Overview of KANE-EM Industries Ltd.

KANE-EM Industries Ltd., established in 1976, is a leading packaging manufacturing company located in the North Industrial Area of Accra, Ghana. The company specializes in meeting the plastic packaging requirements for the beverage and FMCG markets across West Africa. They have expanded their technology to include extrusion blow molding, injection molding, and continuous compression molding, producing high-quality products with state-of-the-art machinery.

Strengths

- **Technological Advancements:**
  - Utilizes advanced machinery such as Husky, Sacmi, Ferromatik Milacron, and Haitian for various molding processes.
  - First to introduce compression molded closures in Ghana with high-speed SACMI technology.
- **Market Leadership:**
  - Covers 85% of Ghana's market share in plastic packaging.
  - Trusted by over 150 multinational clients and leading global brands.
- **Quality Assurance:**
  - Certified with FSSC 22000, ISO 22000, and ISO 9001.
  - Committed to producing and delivering safe, high-quality plastic packaging products.
- **Comprehensive Services:**
  - Offers technical support to help customers choose custom-made products.
  - Provides a one-stop-shop experience from concept inception to realization.
- **Infrastructure:**
  - Equipped with over 70 advanced machines and a highly skilled team.
  - Ensures uninterrupted local production and delivery.

Strategies

- **Innovation and Technology:**
  - Continuous investment in the latest technology to stay at the forefront of automation and capabilities.
  - Use of high-speed SACMI and HUSKY machines to enhance production efficiency and quality.
- **Customer-Centric Approach:**
  - Focus on providing affordable, dependable, and cutting-edge packaging solutions.
  - Responsive sales services and flexible supply chain management to meet customer needs.
- **Sustainability:**
  - Commitment to creating a cleaner and greener Africa through eco-friendly practices.

- Implementation of a 10-point plan for environmental sustainability.

- **Quality and Compliance:**
  - Adherence to international standards and certifications to ensure product safety and quality.
  - Regular quality checks and stringent testing processes to maintain high standards.
- **Market Expansion:**
  - Strategic partnerships and collaborations to expand market reach.
  - Continuous improvement and adaptation to meet the evolving needs of the market.

12. Mork Impression

Overview.

Mork Impression is a Printing Press incorporated with a state of the art offset and digital printing machines. With over a decade in the printing industry, Mork Impression is poised to add value to your esteemed organisation by taking care of your printing needs. We are ready to conduct you through our facility in order to ascertain our capabilities in our field of specialty. We offer a swarm of printing services with excellent relationship management. We produce to precision, accuracy and exactitude. Our high resolution pre-press equipment releases every pantone with the exact colour density that meets the modern demands of any organization.

Strength:

Industrial Capacity

- A skilled and dedicated 40 member staff at your service 24/7.
- Machinery:
  Offset Sheetfed, 5 Colour Print Master, Heidelberg, Offset Sheetfed, 2 Colour GTO, Offset Sheetfed Printer MOZP, Offset Sheetfed Printer Kord 64, Offset 3 Large Format Printing, Mimaki CJV 30-160, Mimaki JV 33 – 160, Gunsjet E5A – SR – 3202, Konica Minolta (C1070), Konica Minolta C71hc, Kinica Minolta C258 BIZHUB
- Clientele
- Korle - Bu Teaching Hospital
- Kinapharma Limited
- Tinatett Herbal
- Ministry of Health
- Manufacturing Co. Ltd

Strategy

- Uncompromising Quality
- Timely deliveries
- Competitive Prices

The packaging market in Ghana sources materials from India, China, UAE, and Germany. Local manufacturers face higher costs due to import duties, making imported materials more competitive. Local packaging materials can be up to six times more expensive compared to imported ones.

13. GLYPHS Company Limited

Overview.

Glyphs Company Limited was incorporated in Ghana in June 2011 as a private limited liability company and was registered as a printing concern demands, and Corporate Branding. It currently operates in Accra with its head office at Dzorwulo in the Nako House Building. GLYPHS Company Limited is Part of the Local network of large format Printers and Local network of Digital Printers in Ghana. The company Currently boast of 25 skilled permanent staff and 5 non-permanent staff.

The company believes branding is a process that needs to be critically monitored from start to finish because brands cast a magic spell on clients. Glyphs has achieved impressive growth rates since its inception, expanded its operational capacity to three different locations.

The company has also increased its client base to include large public and private institutions and organizations. Presently, GLYPHS has several established clients, most of whom consistently produce monthly, quarterly and annual publications as well as general print assignments. Some of our satisfied clients, over the years, include: Business and other Corporate Organisations, Non-Governmental Organisations (NGOs), Financial Institutions (both deposit taking & non deposit taking), United Nation Agencies, Authors, Faith based Organisations, Media Organisations, Governmental Agencies, Advertising Agencies, Hospitality industry and pharmacies.

Capacity

Glyphs Company Limited provides business with a unique mix of products and services that offer a range of superior Graphic Design and Creative Design Works, Quality Printing Solutions to clients' needs and requirements. Its products range encompasses printing as well as publicity and promotional materials. Glyphs service customers that are looking for a one-stop solution for all their Advertising, Graphic Design and printing needs. We provide them with an overall cost savings through our "value-added" strategy of job specific solution sales.

- **Machinery/ Equipment:**
  - Reco and conika ronoka 2017 for digital printing
  - GTO and MO for offset printing
  - Ginoty, lesser cutter and CNC cutter for cutting
  - Imax computers for designs

Strengths

- **Digital Printing and offset Printing Services**
- **Graphic Design Services and Creative Services**
- **Preparing Creative for Press and online publications**
- **Facilitate Sharp print on SAV (sticker) and Flexi (PVC Banner) as small as call card. Professional and strictly adhering to the client colour code.**
- **Unique solutions for Everyone**
- **International Know-How, combined with experience in the local market**
- **Wide-ranging Display Signs and Exhibition Stands**
- **Flexibility and attainability**

Strategies

- First things first: We use every ounce of our ingenuity and experience to find creative solutions that answer your brief and more importantly improve your business.
- We do this to put a smile on your face, whilst keeping a close eye on your needs.
- We realise that by helping our clients to grow, we grow too

Strategy

- Uncompromising Quality
- Timely deliveries
- Competitive Prices

Key International Players

Various businesses in India are the sources of packaging materials for the local pharmaceutical manufacturers. Other sources of packaging materials used in Ghana include:

- China
- UAE

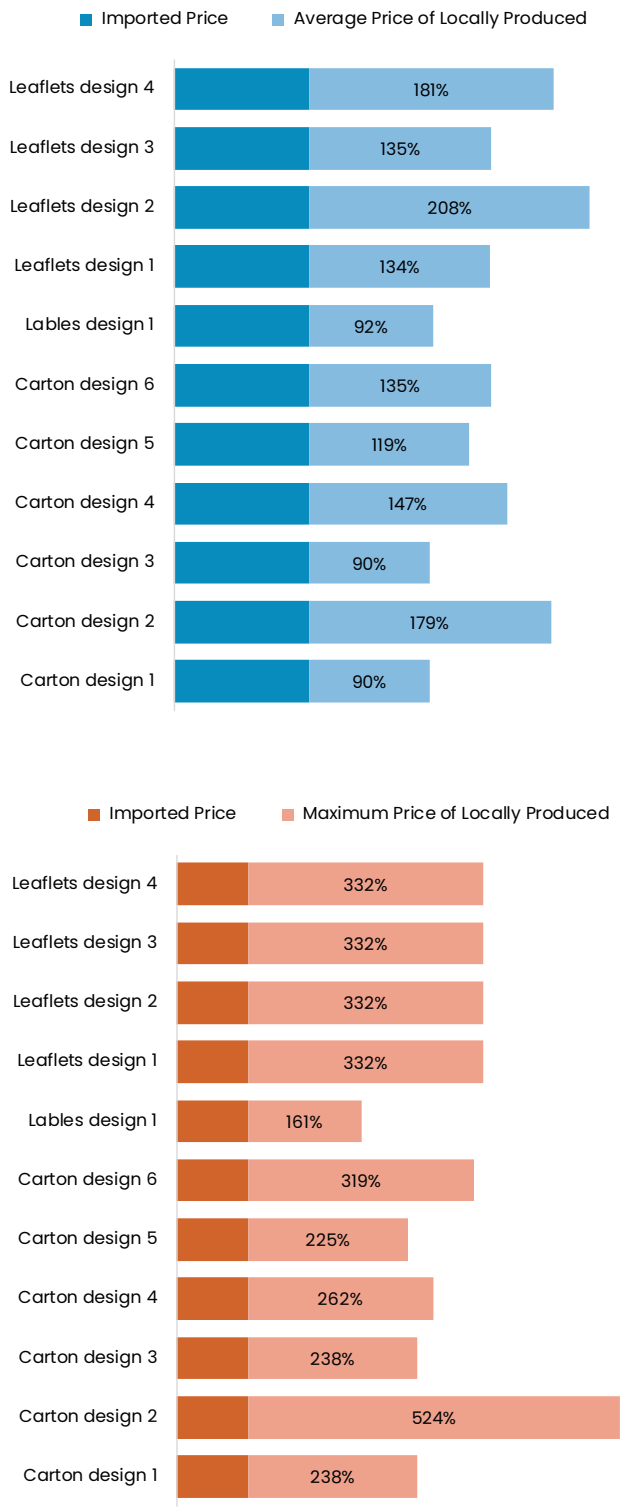
Analysis of Factors Shaping Market

Competition. Germany

1. Pricing:

- **Impact:** The local packaging manufacturers pay taxes and levies on all raw materials and semi-finished materials imported compared to the local pharma manufacturers who get exceptions for these taxes on imported PMs. Hence, the prices of imported PMs are generally more competitive compared to locally produced PMs. The local PMs could be up to 5 times more expensive as shown in the price benchmarking exercise performed on 10 widely used PMs by most local manufacturers.
- **Example:** Figure 3.2 below compares the cost of 10 packaging materials used in Ghana as of 2023 between local manufacturers and international players. This is a sample analyses of quotations received from 5 local manufacturers and one international suppliers for the same specifications of the packaging materials during the research.

Figure 3.2: Prize Benchmarking between Local & Imported PMs



Source: LiA Analysis, 2024.

2. Technological Innovation:

- **Impact:** Companies investing in advanced packaging technologies such as embossed labelling, smart packaging, tamper-evident, and child-resistant features gain a competitive edge.
- **Example:** Ghana Cartons, Fine print, Letap Packaging, Katanka and others

3. Strategic Partnerships and Investments:

- **Impact:** Collaborations between local packaging manufacturers and local pharma manufacturers can lead to import substitution and expanded market reach.
- **Example:** A volume-price agreement signed between Atlantic/Pharma Nova and some packaging manufacturer guaranteed the conversion of imported volume for some packaging materials in 2023 .

3.2 Comparative Analysis of Locally produced Packaging vs Imported

The factors influencing the choice between imported and locally produced pharmaceutical packaging materials in Ghana were identified to include:

1. Quality and Innovation

Imported Packaging:

- **Imported Packaging:** Imported packaging in Ghana are perceived to be of higher quality standards and innovative features, because of the advanced technologies and established practices in developed markets. Key players in the local pharma manufacturers confirmed they get higher quality from imported packaging materials..
- **Local Packaging:** While local manufacturers are improving, there are existing gaps in the level of innovation and quality compared to imported products. However, investments in technology and infrastructure are helping to bridge this gap.

2. Cost Factors

Imported Packaging:

- **Price Volatility:** Import prices can be affected by fluctuations in international markets, exchange rates, and shipping costs.
- **Tariffs and Duties Exemptions:** Import duties, taxes, and tariffs do not contribute to the cost of imported packaging materials because of exemption.
- **Economies of Scale:** Large international manufacturers may benefit from economies of scale, potentially making imported packaging more cost-effective.

Locally Produced Packaging:

- **Production Costs:** Local production costs are influenced by labour, raw material availability, and energy costs. This is lower in Ghana of the economic conditions.

Imported vs. Local Packaging: Imported packaging is perceived as higher quality due to advanced technologies, while local packaging is improving with investments. Cost factors include price volatility and tariffs for imports, and lower production costs for local packaging.

- **Price Volatility:** Import prices for raw materials can be affected by fluctuations in international markets, exchange rates, and shipping costs.

- **Tariffs and Duties:** This is the major contributor to the cost of locally produced packaging materials as all raw materials are imported and are not exempted from duties which increases the overall cost.

3. Supply Chain and Logistics

Imported Packaging:

- **Lead Time:** Longer lead times due to shipping and customs processes which impact inventory management and supply chain efficiency. Research confirmed average lead time of

- **Availability:** Global supply chain disruptions are confirmed to impact the availability of imported packaging materials for example impact of Covid-19 disruptions on local pharma manufacturers.

- **Lack of flexibility:** Minimum order quantities and upfront payment demands are clear differentiators against the imported packaging materials. The Manufacturers pay for 3 – 12 months' supply of PMs imported in advance to international vendors and must meet the minimum order quantities as demanded by the international vendors.

Locally Produced Packaging:

- **Lead Time:** Shorter lead times due to proximity. This leads to more responsive supply chains and inventory management. However Local Pharma manufacturers are concerned about delays in delivery due to inefficiencies observed from the local Packaging manufacturers

- **Flexibility:** Local packaging producers offer more flexibility in order quantities and customization for local pharma manufacturers.

3.3 Volumes, Values and Types of Packaging Materials

The pharmaceutical packaging market in Ghana has been evolving, driven by the increasing demand for medicines, increasing genericization and the growing emphasis on proper packaging to ensure drug safety and efficacy. Here's a broad overview of the volumes, values, and types of packaging materials prevalent in the market as of 2023.

1. Volumes and Values

Figure 3.3: Volumes, Values and Types of Packaging Materials

Source: LiA Analysis, 2024.

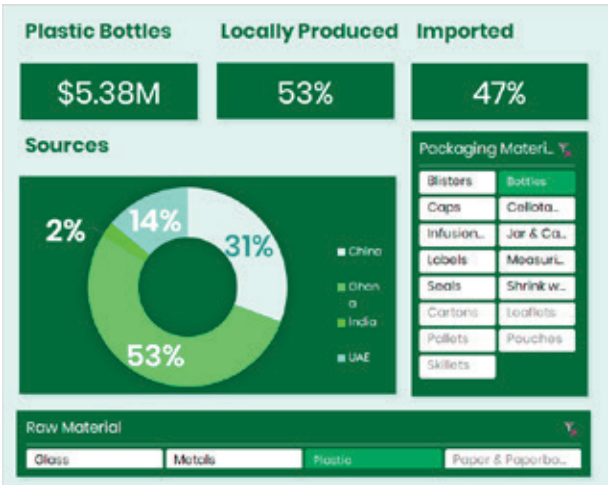
2. Types of Packaging Materials

Overall, the pharmaceutical packaging market in Ghana is characterized by a diverse range of materials and formats, with ongoing growth driven by healthcare demand and technological advancements. The different types of materials are:

1. Primary Packaging Materials:

- **Plastic Bottles:** Commonly used for liquids, tablets, and capsules. They are popular due to their lightweight nature,

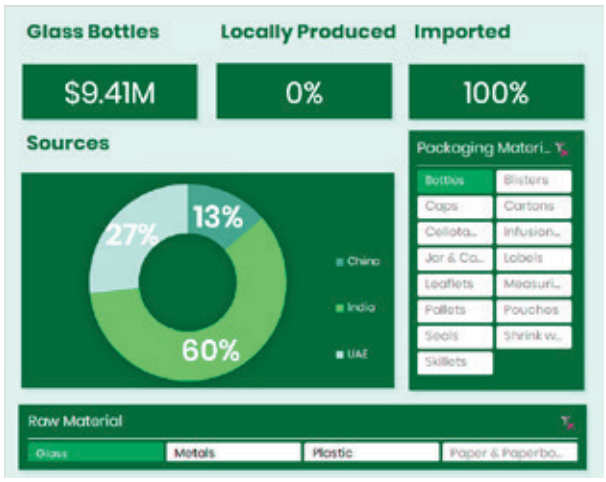
Figure 3.4: Types of Packaging Materials - Plastic Bottles



Source: LiA Analysis, 2024.

- **Glass Bottles:** Used for high-value or sensitive pharmaceuticals that require inert packaging. They are preferred for injectables and certain liquid medications.

Figure 3.5: Types of Packaging Materials - Glass Bottles.



Source: LiA Analysis: 2024

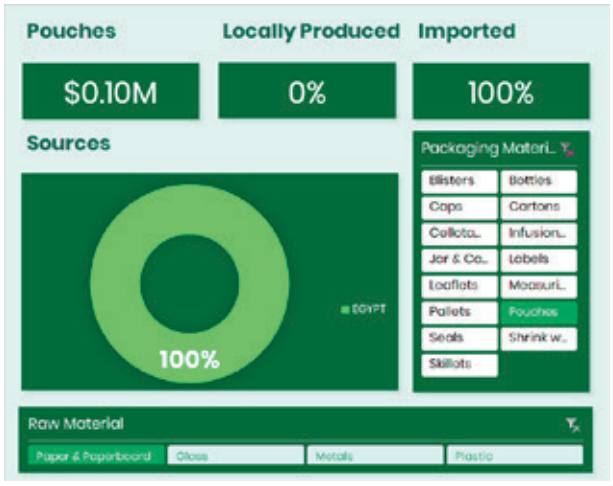
- **Blister Packs:** Widely used for tablets and capsules, providing protection from moisture, light, and contamination. They are made from Aluminium and Plastics.

Figure 3.6: Types of Packaging Materials: Blister Packs - Plastic & Metal

Source: LiA Analysis: 2024

- **Pouches:** Often used for powders, granules, or small quantities of medication. They are flexible and offer a high degree of protection.

Figure 3.7: Types of Packaging Materials: Pouches.

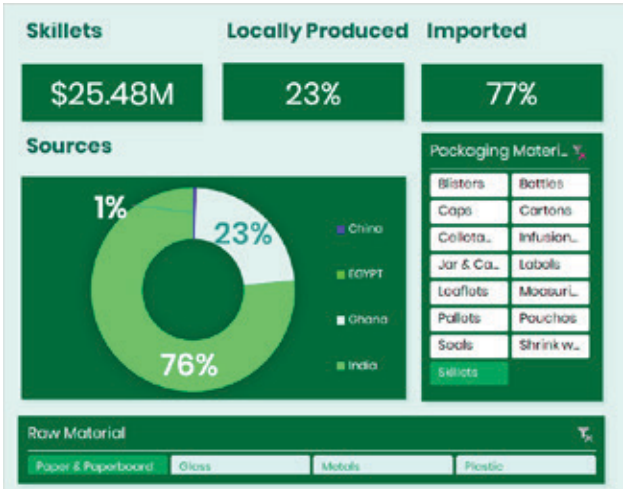


Source: LiA Analysis: 2024

2. Secondary Packaging Materials:

- **Skillets:** Provide safety for the product and critical information, including dosage instructions, safety warnings, and batch numbers. They are essential for regulatory compliance and consumer information.

Figure 3.8: Types of Packaging Materials: Skillets



Source: LiA Analysis: 2024

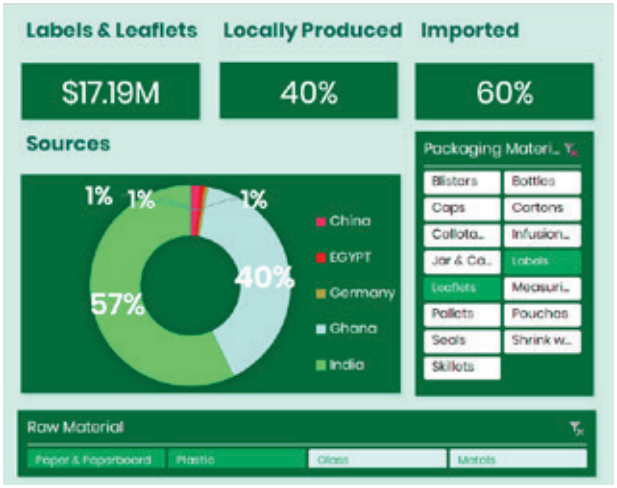
- **Pallets and Shrink Wraps:** Used for bulk handling and transportation of packaged pharmaceuticals. They help in protecting the products during distribution and storage.

Figure 3.9 Types of Packaging Materials: Pallets & Shrink Wraps

Source: LiA Analysis: 2024

- **Labels and Leaflets:** Provide critical information, including dosage instructions, safety warnings, and batch numbers. They are essential for regulatory compliance and consumer information.

Figure 3.10 Types of Packaging Materials: Labels and Leaflets

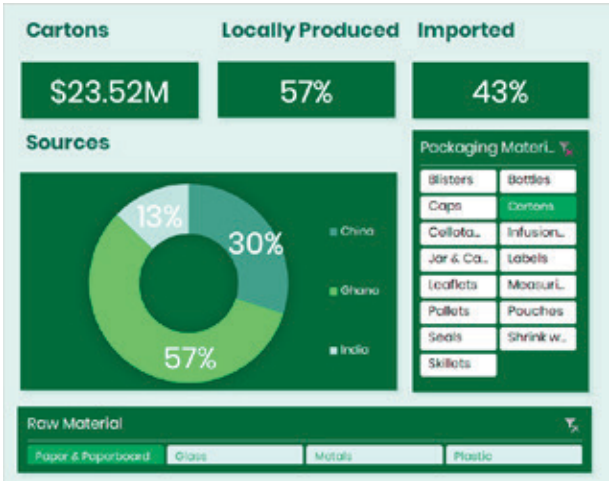


Source: LiA Analysis: 2024

3. Tertiary Packaging Materials:

- **Cartons:** Utilized for enclosing primary packages, providing additional protection and information. Cartons are commonly used for tablets, capsules, and bottles.

Figure 3.11: Types of Packaging Materials: Cartons



Source: LiA Analysis: 2024

Cost Impact Analysis

- Comparative Cost Analysis
- Impact of Packaging Costs on Locally Produced Medicines

Chapter

04

This chapter presents a comprehensive analysis of Packaging Material Cost and its impact on medicine produced in Ghana

4. Cost Impact Analysis

Conducting a cost impact analysis on the pharmaceutical packaging market in Ghana involves examining various factors that influence the costs of both imported and locally produced packaging materials and how these different elements impact the cost of medicines produced locally in Ghana. This analysis helps in understanding how these factors affect overall expenses and strategic decisions in the market.

4.1 Comparative Cost Analysis

COST COMPONENT	LOCAL PACKAGING	IMPORTED PACKAGING
Raw Material Cost	Higher and Impacted by various factors including multiple taxes, levies, forex fluctuations	Perceived to be lower largely because of Government incentives, capacity and economies of scale
Production Cost	Higher and Impacted by Infrastructure gaps, high energy cost and inadequate number and quality of skilled personnel	Adjudged to be lower in Asia and higher in Europe. The overall assessment is lower because of economies of scale
Transportation & Logistics	Higher due largely to huge infrastructural gaps. Breakdown of trucks on the road was a common complain. PM Manufacturers strategically locate factories close to end users to minimize impact	Perceived to be lower due to economies of scale
Regulatory Compliance	Less stringent because standards are yet to be fully established for quality and environmental factors	More stringent because standards are established and monitored both for quality and environmental impact
Trade-offs	Impact on cost of funds is cheaper for local Pharma Manufacturers because purchase is in local currency and funds are not tied down on shipment inventories	Impact on cost of funds is more expensive for local Pharma Manufacturers because purchase is in USD and funds are tied down on shipment inventories of up to 3 – 6 months
Cost-Benefit	As quality is generally adjudged to be lower and cost up to 6 times higher, Overall, Cost-benefit is lower	As quality is generally adjudged to be higher and cost up to 6 times cheaper, Overall, Cost-benefit is higher

Table 4.1 Comparative Cost Analysis source: LiA Analysis, 2024.

In summary, the cost impact analysis of pharmaceutical packaging in Ghana involves a detailed comparison of imported versus locally produced packaging materials, considering factors such as raw material costs, production, transportation, regulatory compliance, and strategic implications. This analysis helps to understand how to optimize packaging costs and supply chain efficiency.

4.2 Impact of Packaging Costs on Locally Produced Medicines

The choice of packaging material has a significant impact on the cost of pharmaceuticals, which varies by dosage form such as tablets, syrups, and injectables. In Ghana's pharmaceutical market, the cost implications of different packaging materials was analysed for each dosage form as follows:

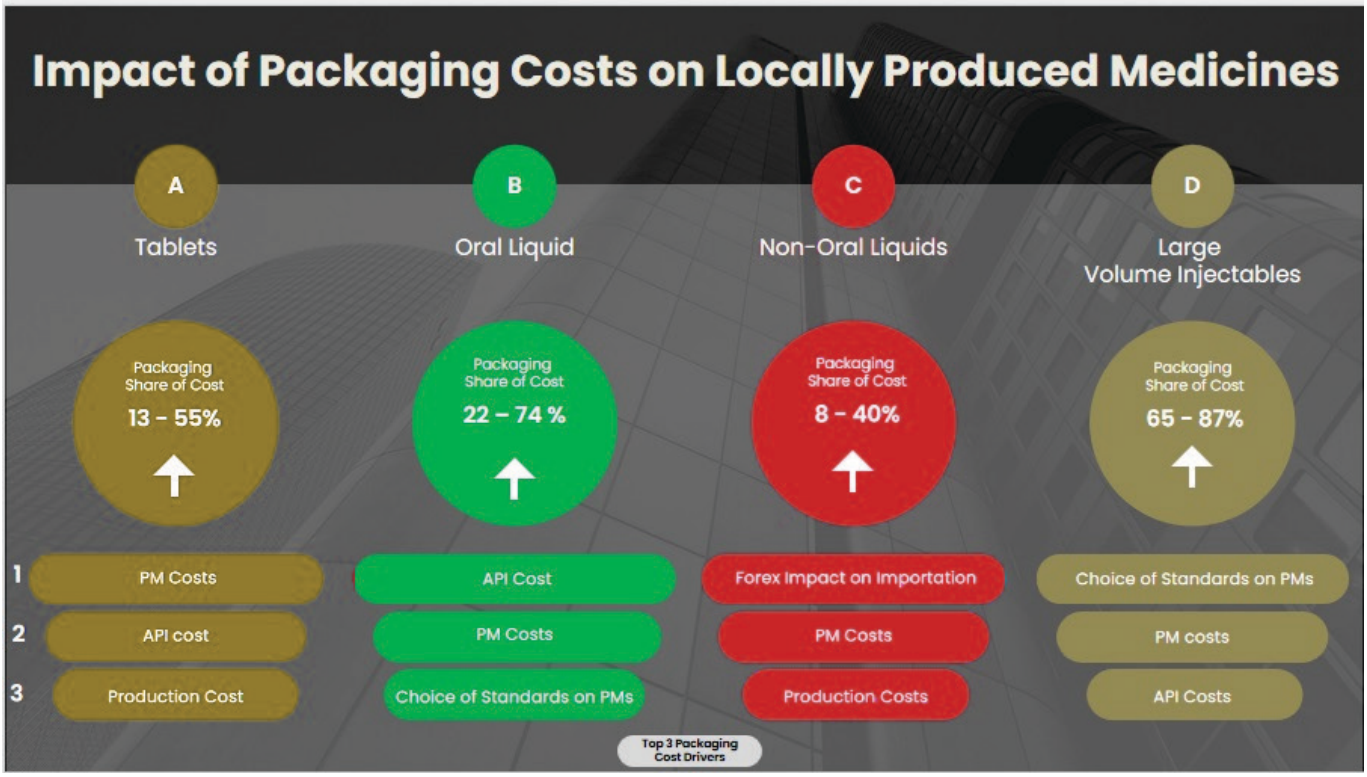
Figure 4.1: Type of Packaging Materials used for Locally Produced Medicines

Segment	Tablets & Capsules	Oral Liquids	Small Volume Injectables	Large Volume Injectables
Primary Packaging	• Blisters (Aluminium & PVC) • Satchets & Pouches	• Bottles (Glass and various Plastics) • Caps (Aluminium and Plastics)	• Ampoules • Vials • Caps	• Infusion bags • Infusion Caps • Labels
Secondary Packaging	• Labels • Leaflets • Skillets & Jackets • Jars & canisters	• Labels • Leaflets • Skillets & Jackets	• Labels • Leaflets • Shrink wraps	• Labels • Leaflets • Shrink wraps
Tertiary Packaging	• Cartons • Pallets • Cellotape • Seals	• Cartons • Pallets • Cellotape • Seals	• Cartons • Pallets • Cellotape • Seals	• Cartons • Pallets • Cellotape • Seals
Value of Packaging Market	31.8M$	49.7M$	0M$	1.9M$

Source: LiA Analysis, 2024.

Understanding the cost impact of packaging materials is crucial for local pharmaceutical manufacturers to compete with imported finished products, manage expenses effectively and ensure product quality and compliance.

Figure 4.2: Cost drivers of the total cost of production for different dosage forms.



Source: LiA Analysis, 2024.

1. Tablets

A. Primary Packaging Materials:

I. Blister Packs:

- **Cost Factors:** Blister packs are commonly used for tablets because they offer protection against moisture and contamination. They are made of plastic and aluminium
- **Cost Impact:**
  - **Material Costs:** The cost includes plastic (PVC, PET) and aluminium foils.
  - **Production Costs:** The process involves forming, filling, and sealing which can be relatively expensive.
  - **Total Cost:** Generally higher due to material and production costs, but offers excellent protection, reducing spoilage and waste.

II. Bottles:

- **Cost Factors:** Plastic bottles are also used for tablets, particularly for larger quantities.
- **Cost Impact:**
  - **Material Costs:** Typically, less expensive than blister packs, especially for plastic bottles.
  - **Production Costs:** Lower compared to blister packs due to simpler manufacturing processes.
  - **Total Cost:** More cost-effective but offers less protection compared to blisterpacks.

B. Secondary Packaging Materials:

I. Skillets:

- Used to encase primary packaging. The cost is influenced by printing, carton material, and design.
- **Labels and leaflets:** Costs for these include printing and regulatory compliance.

C. Cost Impact Summary for Tablets:

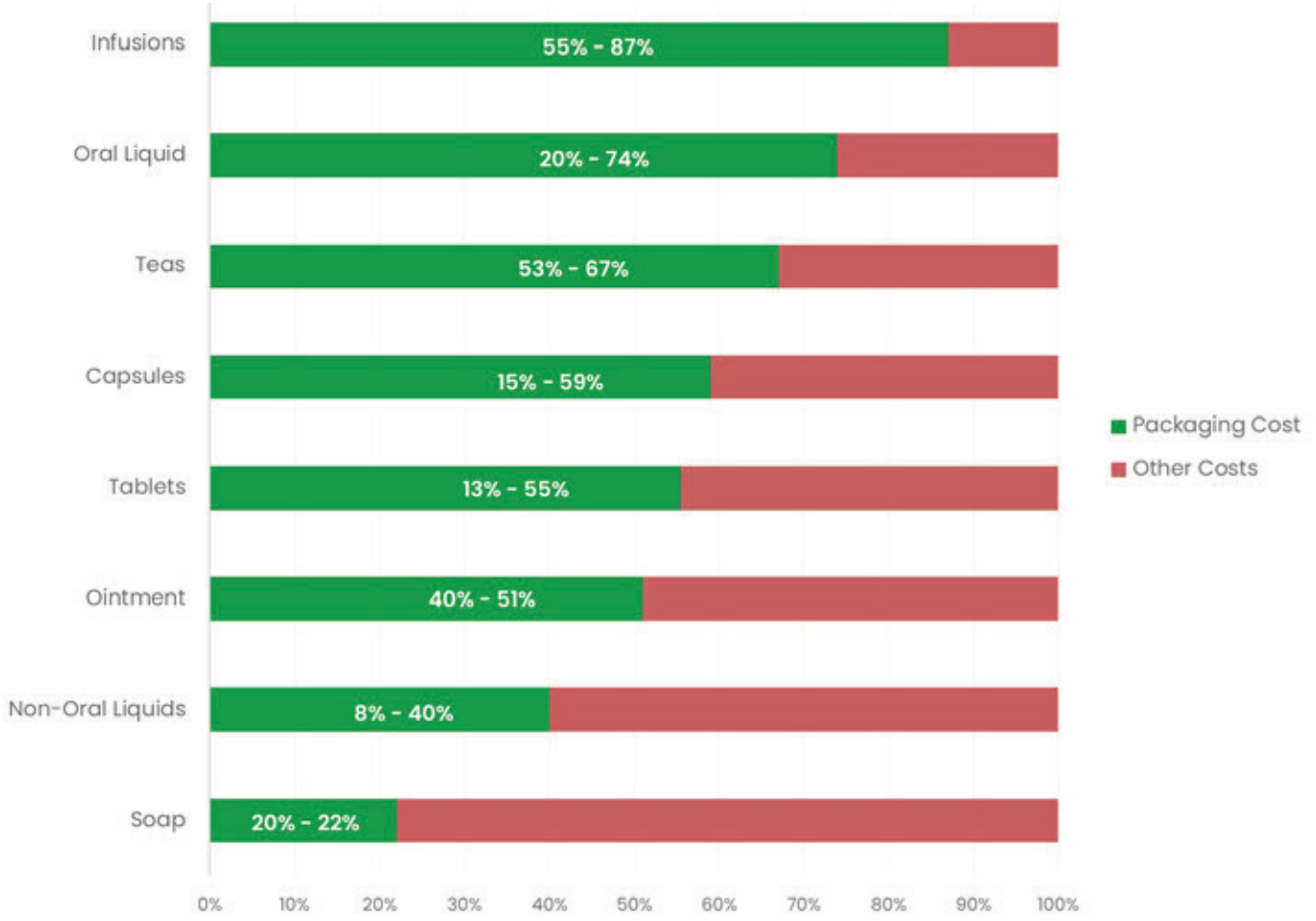
I. Blister Packs:

- Higher cost per unit due to advanced materials and production but provides better protection.

II. Bottles:

- Lower cost per unit, simpler packaging but less protection.

Figure 4.3: Cost contribution of PMs to the total cost of production for different dosage forms of locally produced pharmaceuticals



Source: LiA Analysis, 2024.

2. Syrups

A. Primary Packaging Materials:

I. Plastic Bottles:

- **Cost Factors:** Syrups are usually packaged in plastic bottles due to their liquid form.
- **Cost Impact:**

  - **Material Costs:** Bottles made from PET or HDPE. Costs can vary based on bottle size and design.
  - **Production Costs:** Includes molding, filling, and capping processes.
  - **Total Cost:** Moderate; cost-effective for large volumes, but the quality of the plastic and design can impact the price.

II. Glass Bottles:

- **Cost Factors:** Glass is often used for higher-value syrups or those requiring enhanced protection.
- **Cost Impact:**

  - **Material Costs:** Glass is more expensive than plastic.
  - **Production Costs:** Higher due to the weight of glass and more complex handling.
  - **Total Cost:** Generally higher; provides superior protection and is often preferred for premium or sensitive products.

B. Secondary Packaging Materials:

I. Skillets:

- Used for additional protection and branding, influencing total packaging costs.

II. Labels and Leaflets:

- Printing costs and compliance requirements.

C. Cost Impact Summary for Tablets:

I. Plastic Bottles:

- More cost-effective for larger volumes, lower material and production costs.

II. Glass Bottles:

- Higher cost due to material and production, but offers better protection and is preferred for premium products.

3. Injectables

A. Primary Packaging Materials:

I. Glass Vials

- **Cost Factors:** Glass vials are standard for injectables due to their inert properties.
- **Cost Impact:**

  - **Material Costs:** Higher due to glass material and the complexity of production.

The choice of packaging materials significantly affects the overall cost. While plastic bottles are generally more cost-effective due to lower material and production costs, they offer less protection compared to blister packs and glass bottles. Blister packs and glass bottles, although more expensive, provide superior protection and are often preferred for premium or sensitive products.

- **Production Costs:** Includes molding, sterilization, and sealing
- **Total Cost:** High; glass provides excellent protection and is essential for maintaining the stability of injectables.

II. Pre-filled Syringes:

- **Cost Factors:** Increasingly used for injectables, particularly for vaccines and biologics..
- **Cost Impact:**
  - **Material Costs:** Higher due to advanced materials and technology.
  - **Production Costs:** High due to complex manufacturing processes.
  - **Total Cost:** Higher; offers convenience and precision but comes with a premium price.

B. Secondary Packaging Materials:

I. Skillets and Leaflets:

- Used for bulk handling and protection. Costs vary based on material, design, and printing.
- **Labels:** Compliance with stringent labelling regulations adds to the cost.

C. Cost Impact Summary for Tablets:

I. Glass Vials:

- Higher cost per unit but essential for product stability and safety.
- **Pre-filled Syringes:** Premium cost due to advanced technology and convenience.

Summary of Cost Impacts

1. Tablets

- **Blister Packs:** Higher material and production costs; better protection.
- **Bottles:** Lower costs; simpler packaging but less protection.

2. Syrups:

- **Plastic Bottles:** Cost-effective for large volumes; moderate protection.
- **Glass Bottles:** Higher cost; superior protection and quality.

3. Injectables:

- **Glass Vials:** High cost; essential for stability and safety.
- **Pre-filled Syringes:** Premium cost; offers convenience and precision.

Understanding the cost impact of packaging materials is crucial for local pharmaceutical manufacturers to compete with imported finished products, manage expenses effectively and ensure product quality and compliance.

Challenges and Opportunities

- Challenges with local production of packaging materials
- Concerns of Local Pharma Manufacturers with Reasons
- Regulatory and Policy Constraints
- Concerns of Consumers on Local Packaging
- Market Opportunity Analysis

Chapter

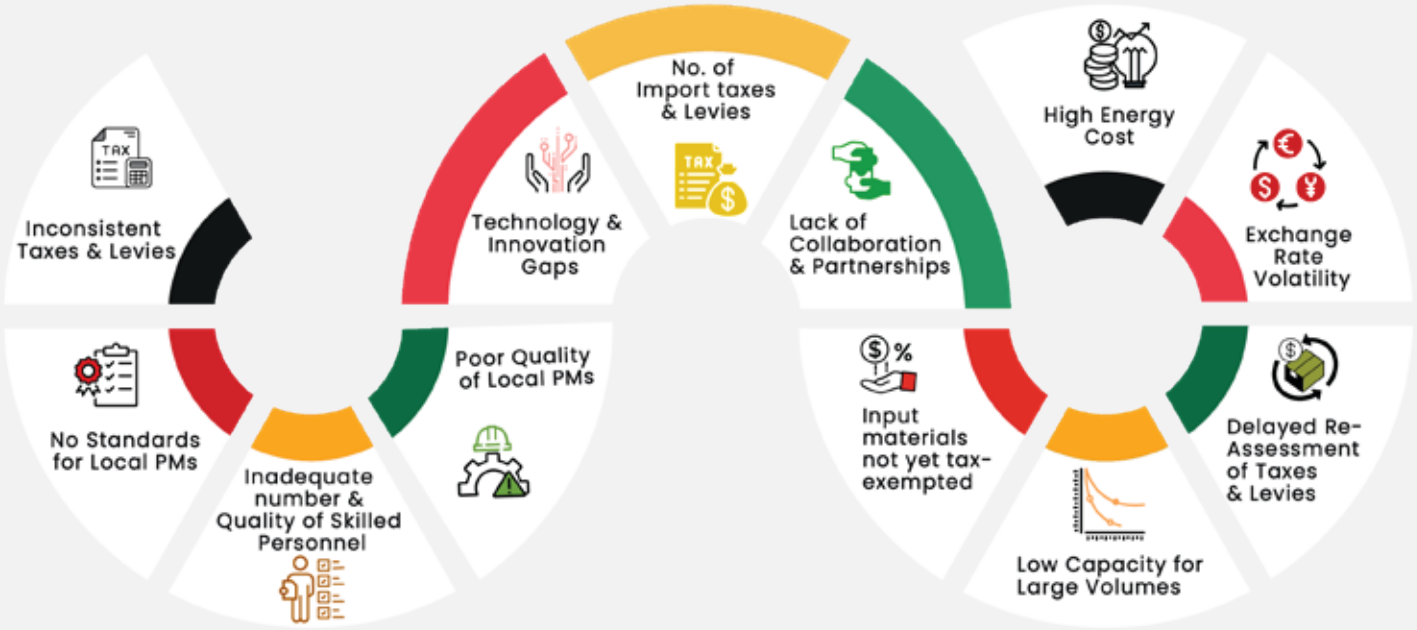
05

This chapter highlights the challenges with local packaging materials, the regulatory and policy constraints as well as market opportunity analysis.

5.1 Challenges with local production of packaging materials

Local production of packaging materials in Ghana's pharmaceutical market presents several challenges. Addressing these challenges is crucial for ensuring that local production can compete effectively with imported packaging materials and meet the needs of the pharmaceutical industry. Here are the main challenges identified:

Figure 5.1: Barriers to Local Packaging Production



Source: LiA Analysis, 2024.

1. Raw Material Availability and Quality

- **Limited Local Supply:** There is often a limited or no supply of high-quality raw materials required for pharmaceutical packaging, such as specialized plastics, glass, or aluminum. This forces local manufacturers to import these materials at higher costs.

- **Quality Control:** Ensuring the quality of locally sourced raw materials can be challenging. Consistent quality is crucial for meeting stringent pharmaceutical standards.
- **Price Volatility:** Fluctuations in global raw material prices does impact local production costs.

2. Technology and Equipment

- **Outdated Technology:** Local packaging manufacturers are using outdated technology compared to international standards. This affects the efficiency and quality of production.
- **High Investment Costs:** Significant capital investment is required for modernizing production facilities and adopting new technologies. Access to financing for such investments are limited in Ghana.

3. Regulatory Compliance

- **Complex Regulations:** Navigating complex regulatory requirements for pharmaceutical packaging is challenging for Local packaging manufacturers. Local manufacturers must comply with both national and international standards, which involve rigorous testing and certification processes.
- **Certification Costs:** Obtaining necessary certifications for example Good Manufacturing Practices, ISO standards etc. is costly and time-consuming. It might cost about 20K USD for a small manufacturer annually.

4. Infrastructure and Logistics

- **Infrastructure Limitations:** Inadequate infrastructure, such as unreliable power supply and poor transportation networks affects production efficiency and increase costs.
- **Supply Chain Disruptions:** Disruptions in supply chains can lead to delays and increased costs for both raw materials and finished products.

5. Skilled Labour and Training

- **Skill Gaps:** Local Packaging manufacturers complain of shortage of skilled labour with the technical expertise required for advanced packaging technologies and quality control.
- **Training Needs:** Ongoing training and development are necessary to keep up with evolving packaging technologies. and industry standards. This is not a routine practice with most local Packaging manufacturers currently.

6. Investment and Funding

- **Access to Financing:** Securing investment and financing for setting up and upgrading packaging facilities can be challenging. This affects the ability of local manufacturers to invest in modern technology and expand production capacity.
- **Economic Fluctuations:** Economic instability can impact investment in the packaging sector and affect the overall cost of production.

Local manufacturers face quality control issues, outdated technology, complex regulations, high production costs, infrastructure limitations, and skill gaps, making it hard to compete with imported packaging.

7. Cost Competitiveness

- **Higher Production Costs:** Local production costs are higher due to factors like labour, energy, and raw material costs. This makes it difficult to compete with imported packaging materials, which may benefit from economies of scale.

Figure 5.2: Negative Impact of Factors of Production for Local Manufacturers

Cost Component	Local Packaging	Impact on Cost of Production	Imported Packaging
Raw Material Cost	• Higher and Impacted by various factors including multiple taxes, levies, forex fluctuations	Negative (-)	• Perceived to be lower largely because of Government incentives, capacity, and economy of scale
Production Cost	• Higher and Impacted by Infrastructure gaps, high energy cost and inadequate number and quality of skilled personnel	Negative (-)	• Adjudged to be lower in Asia and higher in Europe. The overall assessment is lower because of economies of scale
Transportation & Logistics	• Higher due largely to huge infrastructural gaps. Breakdown of trucks on the road was a common complain. PM Manufacturers strategically locate factories close to end users to minimize impact	Negative (-)	• Perceived to be lower due to economies of scale
Regulatory Compliance	• Less stringent because standards are yet to be fully established for quality and environmental factors	Negative (-)	• More stringent because standards are established and monitored both for quality and environmental impact
Trade-offs	• Impact on cost of funds is cheaper for local Pharma Manufacturers because purchase is in local currency and funds are not tied down on shipment inventories	Positive (+)	• Impact on cost of funds is more expensive for local Pharma Manufacturers because purchase is in USD and funds are tied down on shipment inventories of up to 3 – 6 months
Cost-Benefit	• As quality is generally adjudged to be lower and cost up to 5 times higher, overall, cost-benefit is lower	Negative (-)	• As quality is generally adjudged to be higher and cost up to 6 times cheaper, overall, cost-benefit is higher

Source: LiA Analysis, 2024.

- **Economies of Scale:** Large international manufacturers often benefit from economies of scale, reducing per-unit costs. Local manufacturers are struggling to achieve similar cost efficiencies.

8. Competitive Pressure

- **Competition with Imports:** Imported packaging materials often come from established suppliers with advanced technologies and lower costs. Competing against these products requires significant effort in improving local production processes and reducing costs.
- **Innovation Challenges:** Keeping up with global trends and innovations in packaging materials can be difficult for local producers with limited resources for research and development.

9. Market Demand and Scale

- **Demand Fluctuations:** Variability in market demand affect production schedules and efficiency. Local manufacturers face challenges in adjusting to fluctuating demand and maintaining steady production levels. This is producing inefficiencies in production and inventory management.
- **Scale Limitations:** Local manufacturers struggle to achieve the scale needed to be competitive, especially for larger pharmaceutical companies that require high volumes of packaging materials.

10. Quality Assurance and Standardization

- **Inconsistent Quality:** Ensuring consistent quality in packaging materials and all through all stages of production is challenging, especially with limited local resources for quality control and testing.
- **Standardization:** Adhering to international quality and safety standards can be difficult for local manufacturers.
- **Testing Facilities:** Access to state-of-the-art testing facilities for validating the quality and safety of packaging materials may be limited locally.

Challenges in Local Packaging: Local manufacturers face issues with training, investment, competition, market demand, and quality assurance, making it difficult to compete with imported packaging materials.

5.2 Concerns of Local Pharma Manufacturers with Reasons

Local pharmaceutical manufacturers in Ghana have several concerns that impact their ability to collaborate with the local packaging manufacturers. Understanding these concerns helps in addressing them to support the growth and sustainability of the local pharmaceutical industry. Here's a detailed look at these concerns and the reasons behind them:

Figure 5.3: Concerns of Local Manufacturers with Reasons

Source: LiA Analysis, 2024.

1. Cost and Competitive Pressure

Concern:

- **High Production Costs:** Local production costs are considerable higher compared to imported alternatives, impacting competitiveness.
- **Competition with Imported Products:** Local manufacturers face competition from imported pharmaceuticals and packaging materials.

Reasons:

- **Raw Material Costs:** Importing raw materials increase costs.
- **Labour and Energy Costs:** Local labour and energy costs are considerable higher compared to other regions.
- **Economies of Scale:** Smaller

production scales may prevent achieving economies of scale, leading to higher per-unit costs.

- **Cost Advantages:** Imported products benefit from lower production costs and economies of scale.
- **Technology and Innovation:** International competitors often offer more advanced technology and innovative products.

2. Perceived Technological Limitations

Concern:

- **Outdated Technology and Equipment:** Many local manufacturers use outdated technology, impacting production efficiency and product quality.

Reasons:

- **Capital Investment:** High initial costs for modernizing equipment and adopting advanced technologies can be prohibitive.
- **Maintenance Costs:** Older machinery may have higher maintenance costs and lower efficiency.

3. Quality Assurance and Standardization

Concern:

- **Maintaining High Standards:** Ensuring high quality and consistency in pharmaceutical products can be challenging.

Reasons:

- **Limited Testing Facilities:** Access to advanced testing and quality control facilities is limited locally.
- **Training Needs:** Ongoing training is required to maintain higher standards and keep up with industry best practices.

Concerns of Local Pharma Manufacturers: High production costs, outdated technology, and maintaining quality standards challenge local manufacturers, impacting their ability to compete with imported packaging materials.

5.3 Regulatory and Policy Constraints

In Ghana, the pharmaceutical packaging market faces several regulatory and policy constraints that impact both local and international companies. These constraints can affect the cost, efficiency, and overall operation within the industry. Here's a detailed overview of the constraints identified:

Figure 5.4: Factors contributing to Regulatory and Policy Constraints

Source: LiA Analysis, 2024.

1. Complex Regulatory Framework

A. Multiple Regulatory Bodies:

- **Regulatory Bodies:** The pharmaceutical packaging market in Ghana is regulated by multiple bodies, including the Food and Drugs Authority (FDA) and the Ghana Standards Authority (GSA). Each agency has specific mandates related to packaging materials and practices.
- **Coordination Issues:** Local manufacturers face competition from imported pharmaceuticals

and packaging material Navigating the requirements of different agencies can be complex and may lead to bureaucratic delays.

B. Evolving Standards:

- **Changes Anticipated:** Regulatory standards and guidelines are currently under review by FDA and GSA. This is expected to introduce a more stringent regulatory environment. In similar manner, FDA is introducing more stringent controls for local pharma manufacturers and herbal medicine producers to compile with GMP.
- **Adaptation Costs:** Adapting to new regulations can be costly and time-consuming for manufacturers.

2. Certification and Compliance Costs

A. High Compliance Costs:

- **Certification Requirements:** Obtaining necessary certifications for packaging materials, such as Good Manufacturing Practices (GMP) and ISO certifications, involves significant costs.
- **Quality Testing:** Compliance with quality testing and validation requirements adds to the overall cost of production

B. Administrative Burden:

- **Documentation and Approvals:** The process of obtaining approvals and maintaining documentation for regulatory compliance can be labour-intensive and administratively burdensome.

3. Import Regulations and Tariffs

A. Import Restrictions:

- **Regulatory Approvals:** Importing packaging materials require additional approvals and permits, adding complexity to the import process.
- **Delays:** Delays in obtaining import permits disrupt supply chains and impact production schedules.

B. Tariffs and Duties:

- **High Import Duties:** Import duties and tariffs on packaging materials increase costs for manufacturers.
- **Cost Impact:** Higher import costs impact the overall cost structure and pricing of pharmaceutical products.

4. Local Content Requirements

A. Local Sourcing Mandates:

- **Government Policies:** Are there policies encouraging or mandating the use of locally sourced materials? While this supports local industry, it limits access to higher-quality or more cost-effective international materials.
- **Quality and Availability:** Local sourcing mandates lead to challenges in ensuring the quality and availability of required materials.

B. Impact on Costs:

- **Higher Costs:** Locally produced materials are usually more

Regulatory and Policy Constraints: The pharmaceutical packaging market in Ghana faces complex regulations, high compliance costs, import restrictions, and local content requirements, impacting cost and efficiency.

expensive or less consistent in quality compared to imported alternatives, affecting overall production costs.

5. Health and Safety Standards

A. Stringent Health Regulations:

- **Safety Requirements:** Packaging materials must meet stringent health and safety regulations to ensure they do not affect the efficacy or safety of the pharmaceutical products.
- **Testing and Validation:** Extensive testing and validation are required to meet these safety standards, which increases costs and complexity

B. Regulatory Inspections:

- **Regular Inspections:** Frequent inspections by regulatory bodies ensure compliance with health and safety standards, which can be disruptive and costly for manufacturers.

6. Counterfeit Concerns:

- **Counterfeit Products:** Ensuring the integrity of packaging to prevent counterfeiting is a significant concern, necessitating additional regulatory and security measures.

7. Lack of Harmonized Standards

A. Divergent Standards:

- **International Standards:** There is a lack of harmonization between local standards and international standards.
- **Adaptation Challenges:** Adapting packaging to meet different standards can increase costs and complexity.

B. Market Access Issues:

- **Barrier to Trade:** Non-alignment with international standards create barriers to trade and limit access to global and regional markets.

8. Economic and Political Instability

A. Policy Uncertainty:

- **Economic Fluctuations:** Economic instability and political uncertainty affect regulatory policies and create an unpredictable business environment.
- **Investment Risks:** Uncertainty deter investment in the pharmaceutical packaging sector and affect long-term planning.

B. Infrastructure Challenges:

- **Infrastructure Development:** Insufficient infrastructure for logistics and distribution does impact the efficiency of packaging and supply chains.

Local Sourcing Challenges: While supporting local industry, mandates for locally sourced materials limit access to higher-quality or cost-effective international options, impacting quality and costs.

5.4 Concerns of Consumers on Local Packaging

Consumer insights in the pharmaceutical packaging market in Ghana provide valuable information about the preferences, needs, and behaviours of end-users and other stakeholders. Understanding these insights helps pharmaceutical companies and packaging manufacturers design products that meet consumer expectations and regulatory requirements. Here's an overview of key consumer insights in Ghana's pharmaceutical packaging market:

Figure 5.5: Concerns of Consumers on Local Packaging

Source: LiA Analysis, 2024.

1. Consumer Preferences

A. Convenience and Ease of Use:

- **User-Friendly Packaging:** Consumers prefer packaging that is easy to open and use, especially for medications that are used frequently or by elderly patients.
- **Portability:** Packaging that is convenient for carrying, such as blister packs or single-dose units, is

B. Clear Labelling:

- **Informative Labels:** Consumers value clear and informative labelling that provides essential information about the medication, including dosage, usage instructions, and expiration dates.
- **Local Languages:** Packaging that includes labels in local languages helps in understanding the medication, especially for herbal medicines.

C. Safety and Security:

- **Tamper-Evident Features:** Packaging with tamper-evident seals and safety features is important to consumers for ensuring the authenticity and safety of the medication.
- **Child-Resistant Packaging:** There is a growing demand for child-resistant packaging to prevent accidental ingestion by children.

D. Aesthetic Appeal:

- **Design and Appearance:** Attractive and well-designed packaging can influence consumer perception and preference. Consumers are drawn to packaging that looks modern and well-designed.

2. Awareness and Education

A. Health Literacy:

- **Educational Information:** Consumers appreciate packaging that includes educational information about the medication's benefits, potential side effects, and proper usage.
- **Awareness Campaigns:** Efforts to increase health literacy through packaging and accompanying materials enhance consumer understanding and adherence.

B. Regulatory Awareness:

- **Trust in Regulatory Compliance:** Consumers trust products that have clear evidence of compliance with local and international regulatory standards. This includes visible certification marks and quality assurance indicators.

3. Economic Considerations

A. Affordability:

- **Cost Sensitivity:** Price sensitivity is significant, with consumers looking for affordable medications. Packaging that reduces costs without compromising quality are more attractive.
- **Value for Money**: Consumers are interested in packaging that offers good value for money, such as larger quantities or multi-dose options at a reasonable price.

B. Local vs. Imported Products:

- **Preference for imported Products:** This is mostly driven by cost competitiveness of imported products.
- **Perceived Quality:** Some consumers perceive imported products as higher quality due to brand reputation and perceived higher standards.

Consumer Insights: Consumers in Ghana prefer user-friendly, clearly labelled, and tamper-evident packaging. They value affordability, eco-friendliness, and trust in regulatory compliance, with a growing preference for locally produced pharmaceuticals.

4. Environmental Concerns

A. Sustainability:

- **Eco-Friendly Packaging:** There is increasing awareness of environmental issues, leading to a demand for eco-friendly and sustainable packaging options. Consumers are interested in packaging made from recyclable or biodegradable materials without additional cost.
- **Waste Management:** Consumers are concerned about the environmental impact of packaging waste and prefer solutions that are environmentally responsible without additional cost.

B. Corporate Responsibility:

- **Sustainable Practices:** Companies that demonstrate corporate social responsibility and environmental stewardship through their packaging practices enhance their reputation and appeal to environmentally conscious consumers.

5. Health and Safety Concerns

A. Product Authenticity:

- **Counterfeit Prevention:** With concerns about counterfeit medications, consumers prioritize packaging that helps verify the authenticity of the product. Features like holograms, QR codes, and unique identifiers are valued.
- **Safety Assurance:** Packaging that provides assurances of safety and quality helps build consumer trust in the product.

B. Durability and Storage:

- **Preservation:** Consumers prefer packaging that effectively preserves the quality and efficacy of the medication throughout its shelf life. Proper sealing and protection against environmental factors are important.

6. Accessibility and Availability

A. Availability in Pharmacies:

- **Widespread Distribution:** Packaging that aligns with standard sizes and formats can facilitate broader distribution and availability in pharmacies and retail outlets.
- **Local Availability:** Ensuring that packaging and products are readily available in local markets is crucial for meeting consumer needs.

B. Affordability and Accessibility:

- **Economic Accessibility:** Ensuring that packaging does not significantly increase the cost of medication is important for maintaining affordability and accessibility for a broad consumer base.

By aligning packaging strategies with these consumer insights, pharmaceutical companies and packaging manufacturers in Ghana can better meet the needs and preferences of their target market, enhance product safety and quality, and improve overall consumer satisfaction.

5.5 Market Opportunity Analysis

Figure 5.6: Market Opportunity Analysis

Source: LiA Analysis, 2024.

The pharmaceutical packaging market in Ghana offers several opportunities for growth and development. This analysis explores various aspects that present market opportunities, including industry trends, emerging demands, technological advancements, and regulatory changes.

1. Growing Pharmaceutical Market

A. Increasing Healthcare Spending:

- **Rising Demand:** As healthcare spending increases, there is a growing demand for pharmaceutical products, which drives the need for effective packaging solutions.
- **Market Growth:** The expanding pharmaceutical market in Ghana presents opportunities for packaging suppliers to offer innovative and compliant solutions.

B. Emergence of New Therapies:

- **New Drug Launches:** The introduction of new drugs and therapies increases the need for packaging that meets the requirements of these products, including specialized and protective packaging.

2. Technological Advancements

A. Smart Packaging:

- **Integration of Technology:** The integration of smart technologies in packaging, such as RFID tags and QR codes, offers opportunities for innovation. Smart packaging enhance traceability, prevent counterfeiting, and provide consumers with product information.
- **Enhanced Functionality:** Smart packaging solutions improve adherence by providing reminders and tracking medication usage.

B. Sustainable Packaging Solutions:

- **Eco-Friendly Materials:** There is a growing demand for sustainable and eco-friendly packaging solutions. Opportunities exist for developing packaging made from recyclable, biodegradable, or reduced materials.
- **Regulatory Compliance:** Compliance with environmental regulations and consumer preferences for sustainability will drive the adoption of green packaging.

3. Local Manufacturing and Supply Chain Development

A. Local Production Capabilities:

- **Investment in Local Manufacturing:** Investing in local manufacturing of packaging materials will reduce dependency on imports and potentially lower costs. This also supports local economic development.
- **Cost Reduction:** Local production will help in managing costs better and improving supply chain efficiency.

B. Supply Chain Optimisation:

- **Infrastructure Improvements:** Developing local infrastructure and logistics capabilities will enhance the efficiency of packaging distribution and reduce lead times.
- **Partnerships:** Collaborating with local suppliers and distributors will improve the reliability of the supply chain and reduce costs.

4. Regulatory and Policy Changes

A. Regulatory Support for Local Industry:

- **Government Initiatives:** Government policies that support local manufacturing and provide incentives for pharmaceutical packaging can create opportunities for growth.
- **Compliance Benefits:** Staying ahead of regulatory changes and meeting compliance requirements will position companies favourably in the market.

Expanding pharmaceutical market in Ghana, driven by increasing healthcare spending and new drug launches, presents opportunities for innovative and sustainable packaging solutions. Investing in local manufacturing and optimizing supply chains can further enhance market growth.

B. Increased Focus on Safety and Quality:

- **Safety Standards:** Adhering to stringent safety and quality standards will enhance market credibility and consumer trust. Opportunities exist for packaging solutions that meet high safety and quality standards.

5. Consumer Preferences and Market Trends

A. Demand for Convenient and User-Friendly Packaging:

- **Ease of Use:** There is a growing preference for packaging that is easy to open and use, especially for elderly and disabled patients. Opportunities exist in designing user-friendly packaging solutions.
- **Portability:** Packaging that offers convenience in carrying and using medications will attract consumers.

B. Awareness and Education:

- **Informative Packaging:** Packaging that provides clear, comprehensive information about medication usage, side effects, and benefits can appeal to informed consumers.
- **Educational Campaigns:** Opportunities exist for packaging that includes educational materials and promotes health literacy.

6. Market Expansion Opportunities

A. Regional Market Access:

- **West African & SSA Market:** Ghana's strategic location in West Africa offers opportunities to expand into neighbouring countries. Developing packaging solutions that cater to regional preferences and regulatory requirements can open new markets.
- **Export Potential:** Exporting packaging solutions to other African countries can leverage Ghana's position as a regional hub.

B. Partnerships and Collaborations:

- **Industry Partnerships:** Collaborating with pharmaceutical companies and other industry stakeholders will lead to new business opportunities and innovations in packaging.
- **Public-Private Partnerships:** Engaging in public-private partnerships will provide support for infrastructure development and regulatory compliance.

7. Addressing Counterfeiting and Security

A. Anti-Counterfeiting Technologies:

- **Security Features:** Implementing advanced anti-counterfeiting measures, such as holograms, unique codes, and tamper-evident seals, will address concerns about counterfeit drugs and enhance packaging security.
- **Consumer Confidence:** Enhancing packaging security will build consumer confidence and ensure the integrity of pharmaceutical products.

B. Regulatory Compliance:

- **Tracking and Traceability:** Opportunities exist in developing packaging solutions that support tracking and traceability, in line with regulatory requirements and consumer demand for authenticity.

8. Investment in Research and Development

A. Innovative Solutions:

- **R&D Investment:** Investing in research and development to create innovative packaging solutions can differentiate companies in the market and address emerging needs.
- **Customization:** Opportunities exist for developing customized packaging solutions that meet specific requirements of different pharmaceutical products.

B. Technology Integration:

- **Advanced Materials:** Researching and integrating advanced materials and technologies into packaging can enhance functionality and performance.
- **Consumer Insights:** Leveraging consumer insights to guide R&D efforts can result in packaging solutions that better meet market demands.

By aligning packaging strategies with these consumer insights, pharmaceutical companies and packaging manufacturers in Ghana can better meet the needs and preferences of their target market, enhance product safety and quality, and improve overall consumer satisfaction.

Key Findings & Prioritization of Key Issues

- Summary of Key Findings
- Prioritization of Key Issues

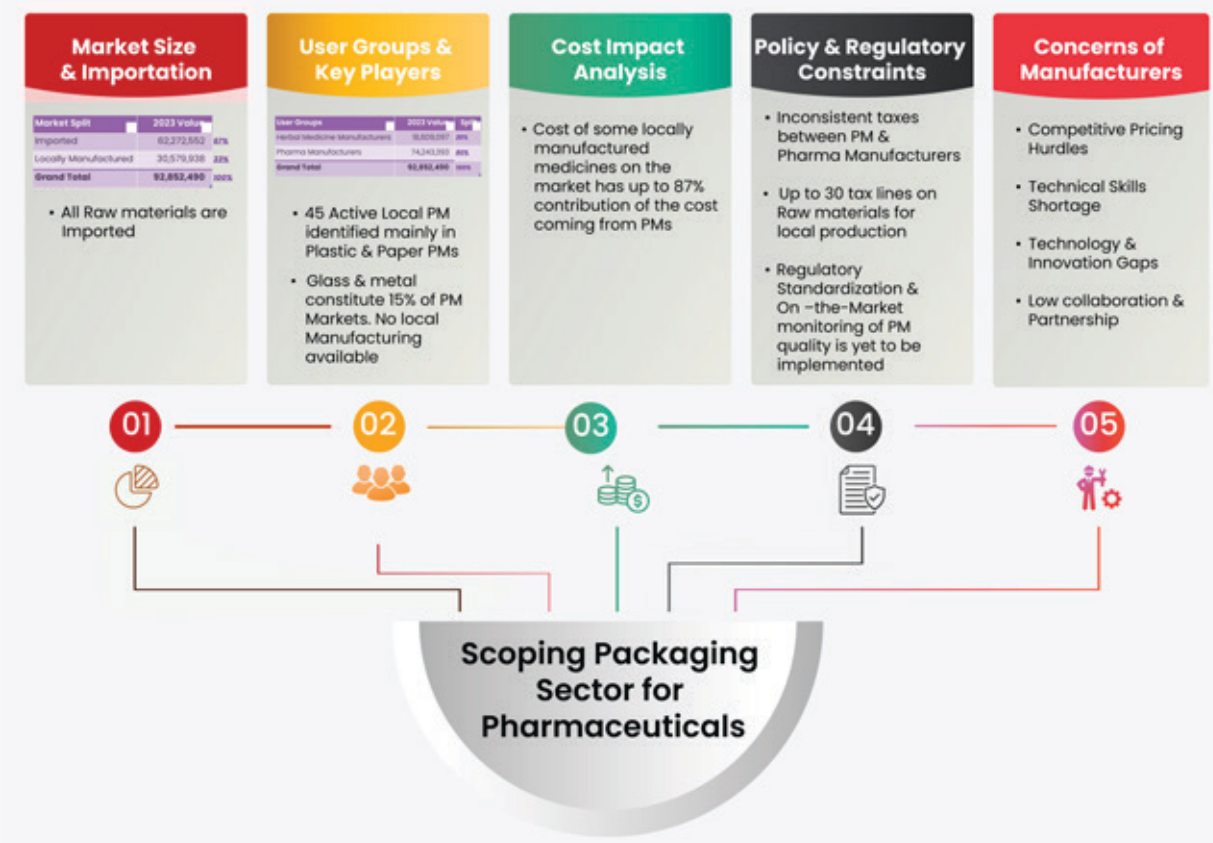
Chapter

06

This chapter outlines the key findings in this research. It also prioritizes the concerns based on the level of impact when the concerns are addressed and the feasibility of addressing the concerns.

6.1 Summary of Key Findings

Figure 6.1: Summary of Key findings.

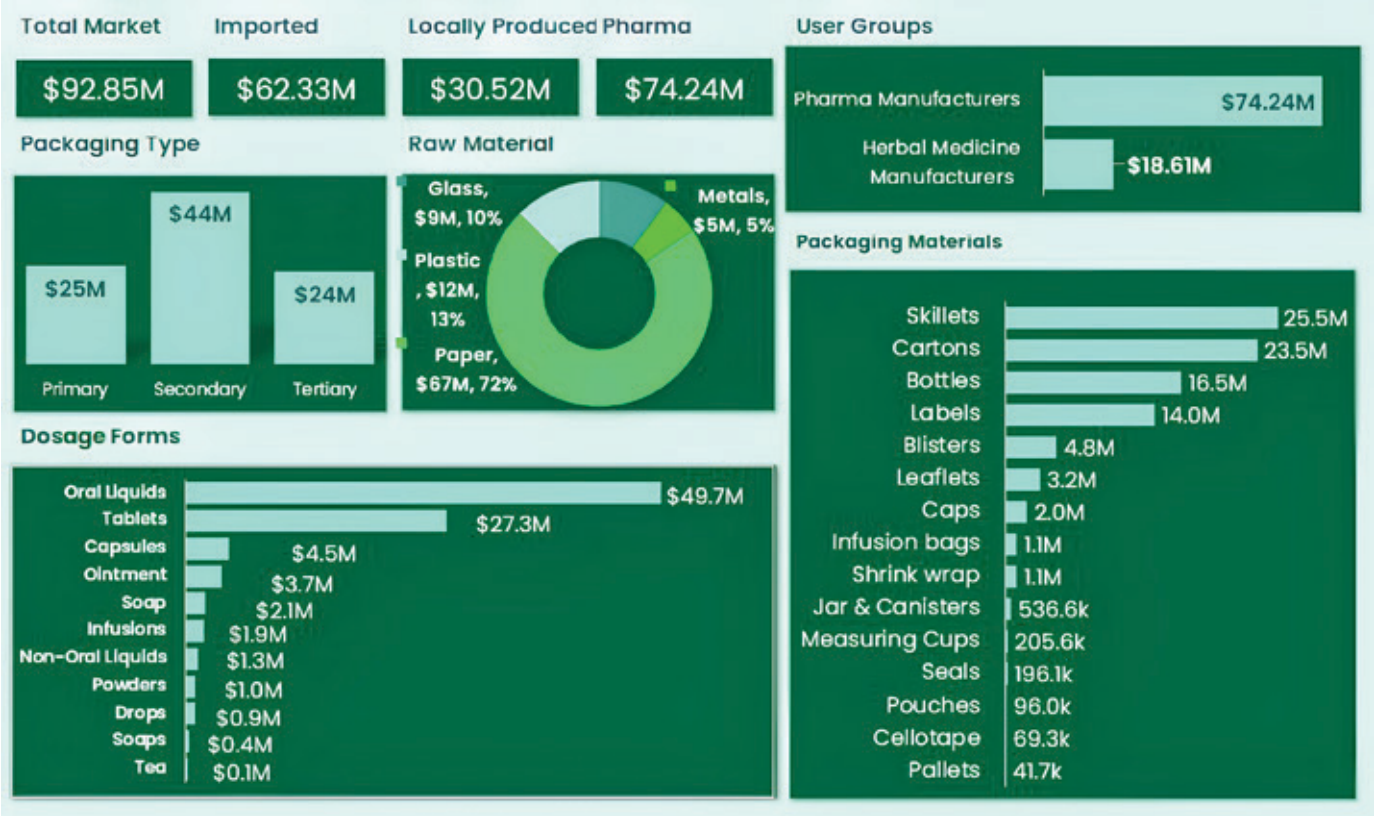


Source: LiA Analysis, 2024.

Market Size and Importation:

In 2023, The Ghana Pharmaceutical Packaging Market is estimated to be $92.85M USD and it is projected to grow from 2024 to 2030 by more than 20%. It covers various material types, including plastics & polymers, paper & paperboard, glass, aluminium foil, and others. The market is segmented into primary, secondary, and tertiary pharmaceutical packaging.

Figure 6.2: Market Size and Segments



Source: LiA Analysis, 2024.

The Imported materials account for 67% of the total market value and it is forecasted to continue to grow until the key concerns of the manufacturers are fully addressed.

Feedback from Manufacturers confirm the following key highlights:

I. The raw materials for the local manufacturing of pharmaceutical PMs are mostly imported.

II. All Aluminium and Glass Packaging materials are imported as finished products currently.

III. India and China are the leading sources of Importation to Ghana for PMs. Other countries include Germany, UAE and United Kingdom.

IV. Historically, up until the last 2 years, importation of packaging materials by pharma manufacturers had been significantly higher and estimated to be above **80%**. Recent trends however shows that importation of finished PMs is slowing down as concerns of Pharma manufacturers continue to be addressed.

End-User Segments:

The key end-users of Pharmaceutical Packaging materials include pharmaceutical manufacturers and the herbal medicines manufacturers. Both groups contribute significantly to the packaging market in Ghana.

Feedback from Manufacturers and environmental scanning confirm the following key highlights:

I. The following estimates were identified for numbers of players by materials they majorly utilize for PM manufacturing

Raw Material	Number of PM Manufacturers
Glass	0
Aluminum & Metals	0
Paper & Paperboard	25
Plastics	17

Table 6.1: Number of Players by Raw Materials source: LiA Analysis, 2024.

II. New players are emerging who are expanding local capacity for Packaging materials made from pharmaceutical grade plastics

III. Players driving the local capacity expansion for packaging materials include Pharma manufacturers like Letap Packaging Ltd. and Herbal medicines manufacturers like Kantanka Herbal Pharmaceuticals who are producing pharmaceutical grade plastics.

Cost Impact Analysis:

The percentage cost contribution of packaging materials to the total cost of locally manufactured pharmaceutical products varies significantly based on the dosage forms and could go as high as 87% for some products.

Feedback from Manufacturers confirm the following key highlights:

I. Products with relatively lower cost of production of the formulation tend to have higher percentage contribution of PMs to cost of goods

II. Certain dosage forms like Infusion and liquid forms have the highest percentage contribution of PMs to cost of goods

The cost impact analysis of packaging materials on pharmaceutical products manufactured in Ghana is a multifaceted consideration. It involves balancing price competitiveness with aesthetic appeal, product stability, safety, and sustainability.

Regulatory concerns are usually about the primary packaging materials and tends to come up at the point of product registration at the FDA. Regulatory scrutiny of secondary and tertiary packaging materials tends to be focused on the information content on the labels and package leaflets and not necessarily on the grade, quality and standards of the secondary and tertiary packaging material.

Policy & Regulatory Constraints:

The Ghanaian pharmaceutical packaging industry faces challenges related to **Policies and Regulation** mainly around:

I. Multiple taxes, levies

Up to 30 tax lines on some PMs and raw materials imported for local PM manufacturing.

II. Inconsistent taxes and levies between locally manufactured vs imported packaging materials.

The current situation around taxes and levies tends to favour importation over local manufacturing.

III. Delayed Re-Assessment of Taxes and Levies:

Some manufacturers confirmed that the approach of Government to re-assessing taxes and levies paid in the previous 3-5 years window which posed significant hurdles to business growth.

IV. Tax Exemption Incentives for Manufacturers:

Some Input raw materials are exempted from some Taxes and Levies. Appendix 1 contains the approved list from Government. Important input materials used by Packaging manufacturers are not yet included on this list.

V. Perceived Low Quality Assurance & No Standardization of Packaging Materials:

Feedback from Manufacturers suggest that although they perceive a very strong effort by the regulators in monitoring the quality of locally manufactured pharmaceutical and herbal products on the market, same cannot be said in respect of monitoring the quality and

standards of packaging materials

- Manufacturers are not aware of any standards for quality of PMs being currently monitored by the regulators on the market, especially with respect to secondary and tertiary materials.
- There is perceived absence of any active "On-the-market" monitoring and enforcement of standards for PMs
- The role of regulators like GSA, EPA are needed to further strengthen the outlook for the local PM manufacturing.

Concerns of Manufacturers:

The Ghanaian pharmaceutical packaging industry faces multiple challenges consistently expressed by all 3 manufacturer groups re: Pharma, Herbal Medicines, and Packaging manufacturers.

The key issues identified, and the reasons adduced by the manufacturers include:

I. Competitive Pricing Hurdles:

Local PM is Non-Competitive due to:

- higher pricing of locally manufactured PM compared to the Imported equivalent resulting from inconsistent taxes and levies between locally manufactured and Imported PMs
- Lower Quality Assurance and Standardization vs Imported PMs
- Unreliable lead times and delivery schedules from local PM manufacturers

II. Technical Skills Shortage:

Inadequate numbers and quality of skilled personnel in the Local Manufacturing sector due to:

- Lack of formal skills building platforms for the technicians needed in all 3 manufacturing sectors
- Inadequate number of trained and skilled personnel in the following areas of expertise:
  - Industrial Pharmacists for production
  - Quality Control
  - Repairs and Maintenance Technicians for the modern machinery

III. Technology & Innovation Gaps:

Lack of desired quality in the locally manufactured PM market is linked to a lot of inefficiencies and inability to deliver to the specifications of the Herbal Medicines and Pharma Manufacturers. The following key points were observed:

- Desire and willingness of all 3 categories of manufacturers in the PM value-chain to go for the modern technology required to deliver to international standards were confirmed
- Some few players are investing in modern state-of-the-art technology to produce internationally competitive packaging locally, e.g.
  - Raw material production – KPA focusing on virgin

Packaging costs significantly impact product pricing. The percentage cost contribution of packaging materials to the total cost of locally manufactured pharmaceutical products varies significantly based on the dosage forms and could go as high as 87% for some products.

paper production locally

- Plastic PMs – Letap, Kantaka, Kane-Em
- Paper/Paperboard PMs – Fineprint, FON.

- The ability to acquire the modern state-of-the-art technology required to achieve internationally competitive quality packaging remains very low amongst the players in the industry and it is largely impacted by the following factors:
  - High cost and financial outlay required to acquire machinery and technology
  - High cost of inputs including importation of raw materials, cost of energy, and other relevant infrastructure required for a vibrant manufacturing sector
  - Low economies of scale
  - Inconsistent taxes and levies in favor of importation of finished Pharma PMs

IV. Lack of Collaboration and Partnership:

Players are still largely individualistic in seeking solutions to all identified issues and platforms for collaboration is either weak or non-existent

V. Lack of Capacity for Large Volumes by local Packaging Manufacturers.

VI. Delays in honouring delivery timelines by local Packaging Manufacturers.

Other specific issues relating to some players within the industry as identified during the research include:

I. Forex crisis and fluctuations

This impacts importation of raw materials as well as finished PMs

II. Sustainable Packaging:

The pharmaceutical industry is increasingly prioritizing the use of sustainable packaging materials. While sustainable materials (such as recyclable plastics, paper, and glass) contribute to environmental goals, they have different and higher cost implications compared to traditional materials.

III. Material Costs:

The choice of packaging materials significantly affects production costs. For instance:

- **Plastics:** Traditional plastics (like PVC) are widely used but may face sustainability challenges. Sustainable alternatives (such as bio-based plastics or recycled PET) impact costs.
- **Glass:** Glass is recyclable and inert, but it tends to be heavier and more expensive than plastics.
- **Paper and Paperboard:** These materials are eco-friendly but may require additional protective layers for pharmaceutical products.

IV. Inflation and Procurement:

Inflation affects material costs. Procurement teams are continuously monitoring and analysing packaging processes to identify areas for improvement and implement cost optimisation strategies

V. High Energy Cost:

This is a leading infrastructure challenge for all manufacturers. The high energy cost impacts significantly the cost of production in Ghana.

By aligning packaging strategies with these consumer insights, pharmaceutical companies and packaging manufacturers in Ghana can better meet the needs and preferences of their target market, enhance product safety and quality, and improve overall consumer satisfaction.

6.2 Prioritization of Key Issues

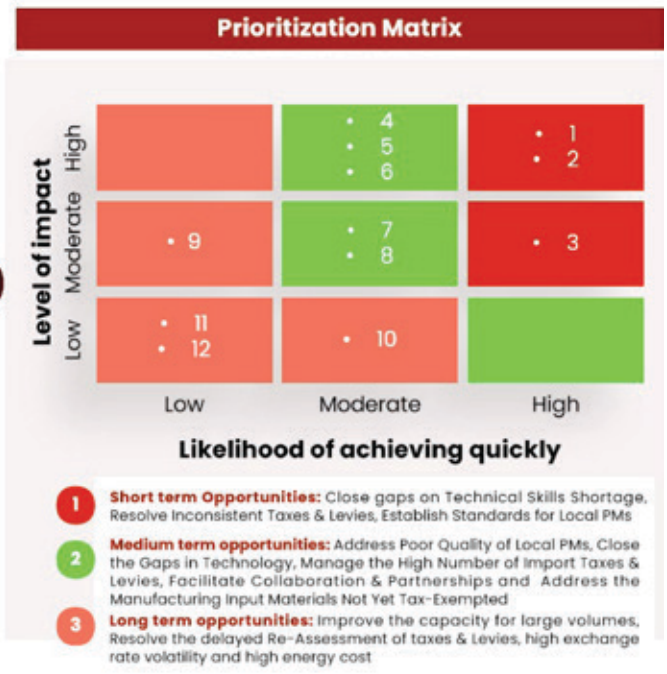
Figure 6.3: Prioritization of Key Issues

Prioritization Criteria

	Key Concerns	Prioritization Criteria	
	Key Concerns/ Challenges	Level of Impact	Ease & Likelihood
1	Inconsistent Taxes & Levies	H	H
2	No Standards for Local PMs	H	H
3	Inadequate Number & Quality of Skilled Personnel	M	H
4	Poor Quality of local PMs	H	M
5	Technology & Innovation Gaps	H	M
6	Number of Import Taxes & Levies	H	M
7	Lack of Collaboration & Partnership	M	M
8	Input Materials for manufacturing not yet tax exempted	M	M
9	Low Capacity for Large Volumes	M	L
10	Delayed Re-Assessment of Taxes & Levies	L	M
11	Exchange Rate Volatility	L	L
12	High Energy Cost	L	L

Source: LiA Analysis, 2024.

Figure 6.4: Prioritization Matrix



Source: LiA Analysis, 2024.

Using the voting of the participants at the solution finding workshop, the key issues were prioritized based on two criteria namely:

- Level of Impact perceived by all stakeholders including manufacturers, regulators and policy makers when the issues are addressed
- Ease and Likelihood of addressing the issues as perceived by the participants and validated by experts.

Overall, the issues are grouped into three clear Opportunities and Recommendations to guide implementation of outcomes of this research. The three groups are:

Short-term Opportunities:

This could be a 1 – 18 months opportunity to realise tangible benefits by focusing on 3 hurdles:

- Close gaps on inadequate numbers and quality of skilled personnel for the manufacturing industry in general and the Packaging sector specifically.
- Fix the inconsistencies in taxes and rates charged to Packaging & Herbal Manufacturers vs Pharma Manufacturers
- Support GSA and FDA to establish Standards for local packaging materials in Ghana

Medium-term Opportunities:

Focusing on the hurdles in this cluster from now can deliver tangible benefits in 2 – 3 years. The barriers under this category are:

I. Poor Quality of Local Packaging materials.

II. Technology and Innovation Gaps.

III. Number of Import Taxes and Levies.

IV. Lack of Collaboration and Partnership.

V. Manufacturing input materials not tax-exempted

Long-term Opportunities:

This category will require long term outlook to the proposed solutions either because it is more complex to address or it requires longer time beyond 3 -5 years to realise tangible benefits from focusing on the issues identified. The hurdles in this category include:

I. Low Capacity by Packaging manufacturers to fulfil large volumes orders

II. Delayed re-assessment of taxes and levies

III. Exchange Rate Volatility and

IV. High Energy Cost

Design of Solutions & Recommendations:

In shaping the solutions and recommendations, the different ideas are clustered around what could bring immediate benefits in the short term, medium term and long-term horizons. The time horizon to derive the benefits were deduced from interviews with various experts and direct inputs from the Innov8 session.

Key issues were prioritized based on impact and ease of addressing them. Short-term opportunities include: improving skilled personnel, fixing tax inconsistencies and establishing standards for local PM. Medium-term focuses on quality and innovation gaps, collaboration and partnership, and high number of import taxes, while long-term targets capacity for large volumes, resolving delayed tax Re-assessments, high energy costs, high exchanged rate volatility etc,.

Solutions & Recommendations

- Short Term Opportunities: Focus on removing 3 hurdles
- Medium Term Opportunities: Focus on addressing 5 hurdles

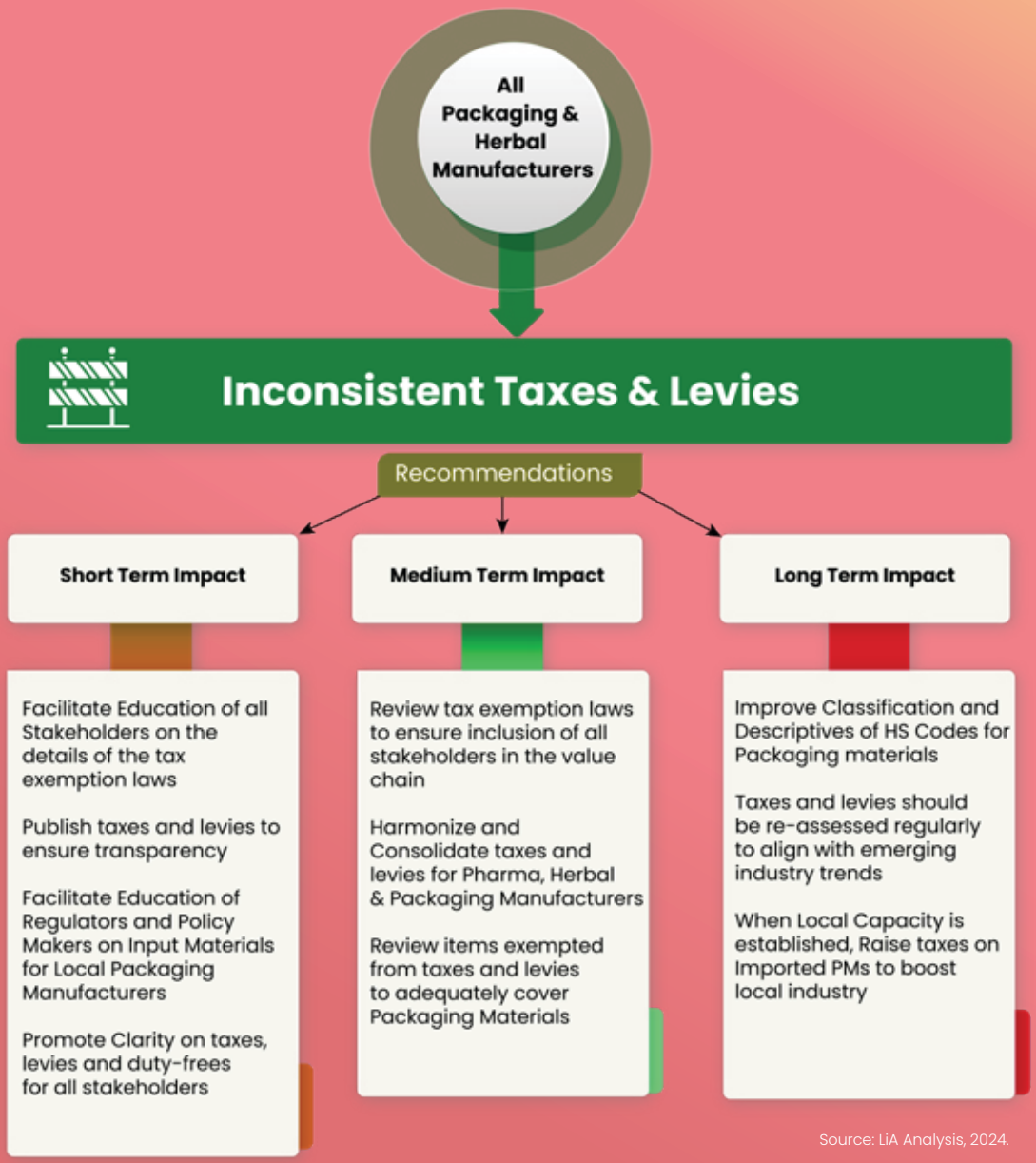
Chapter

07

This chapter outlines various opportunities for interventions in the packaging manufacturing industry towards achieving the goal of uncovering job creation and economic transformation.

7.1 Short Term Opportunities: Focus on removing 3 hurdles

Figure 7.1: Resolving Inconsistent Taxes and Levies.

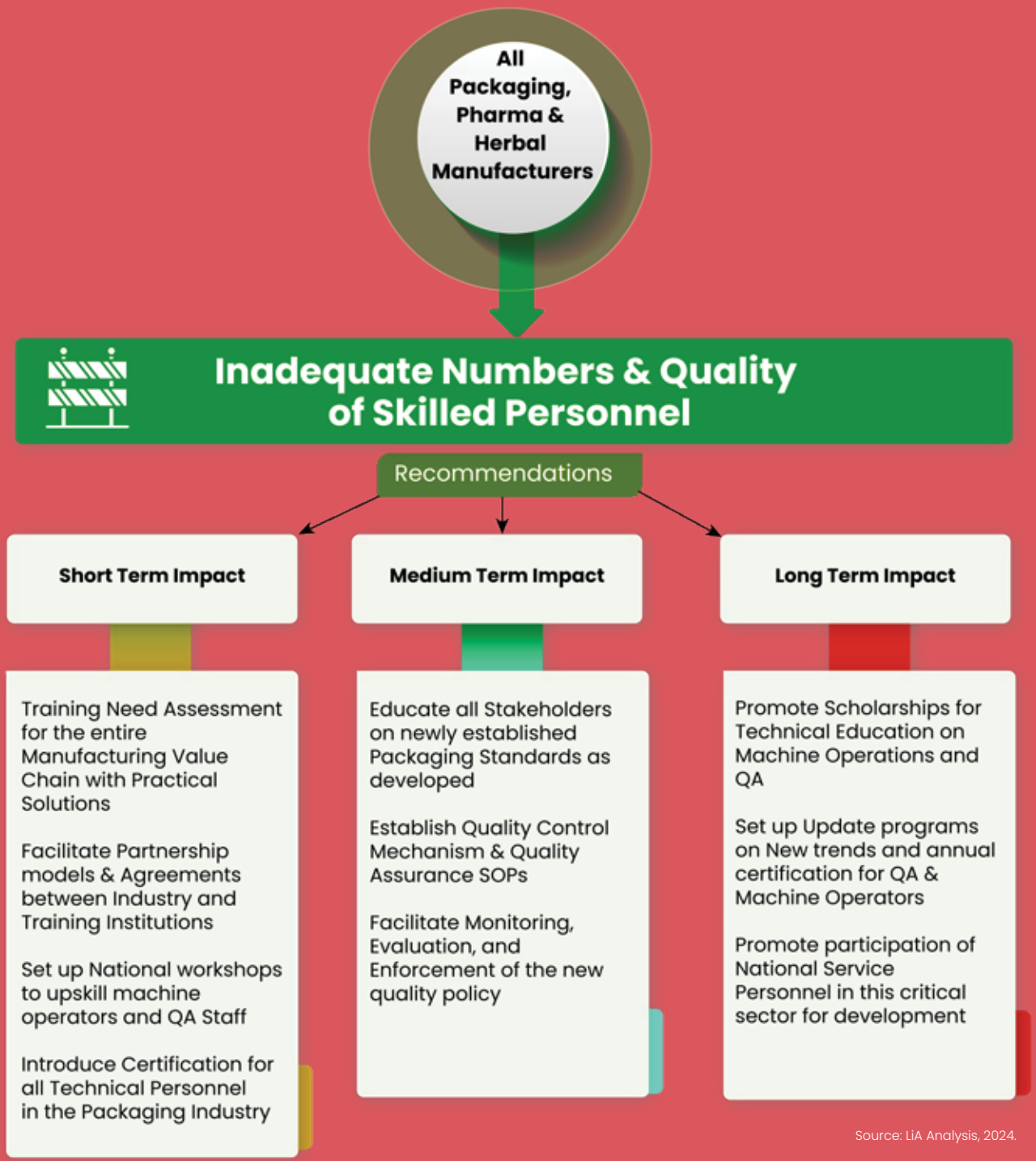


Source: LiA Analysis, 2024.

Figure 7.2: Policies to Improve Quality.

Source: LiA Analysis, 2024.

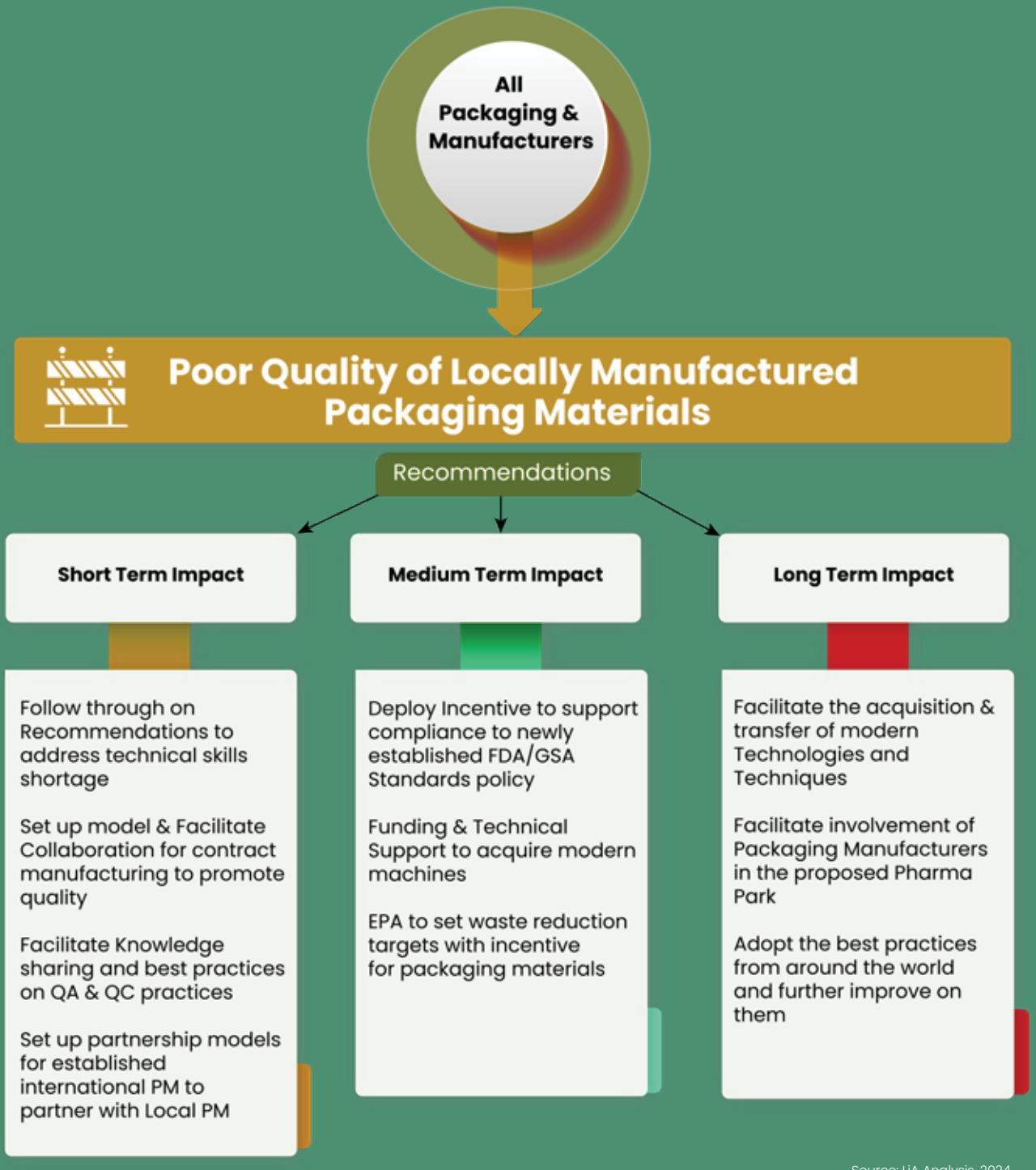
Figure 7.3: Inadequate Number & Quality of Skilled Personnel



Source: LiA Analysis, 2024.

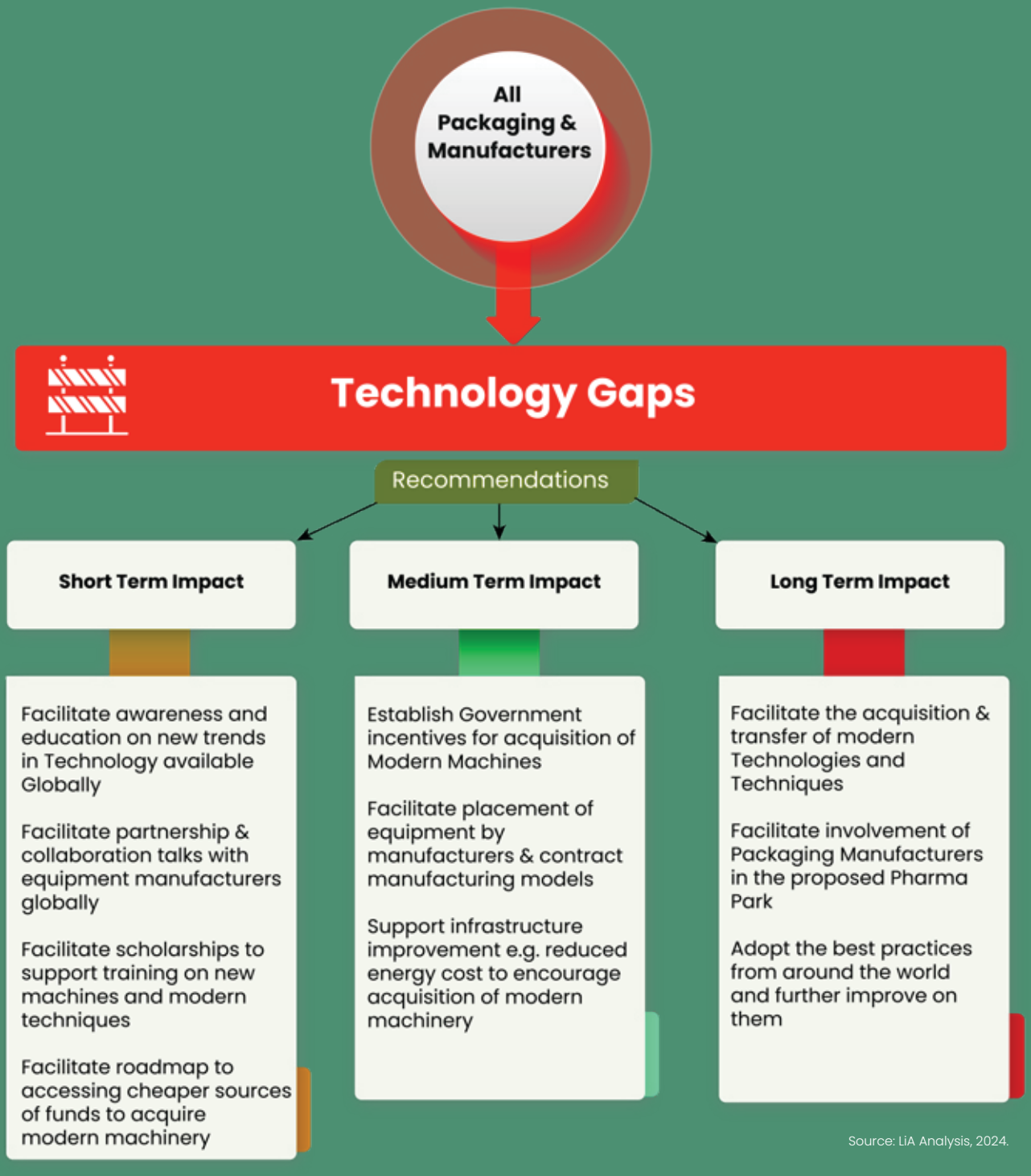
7.2 Medium Term Opportunities: Focus on addressing 5 hurdles

Figure 7.4: Addressing Poor Quality of Local PMs



Source: LiA Analysis, 2024.

Figure 7.5: Closing the Gaps in Technology



Source: LiA Analysis, 2024.

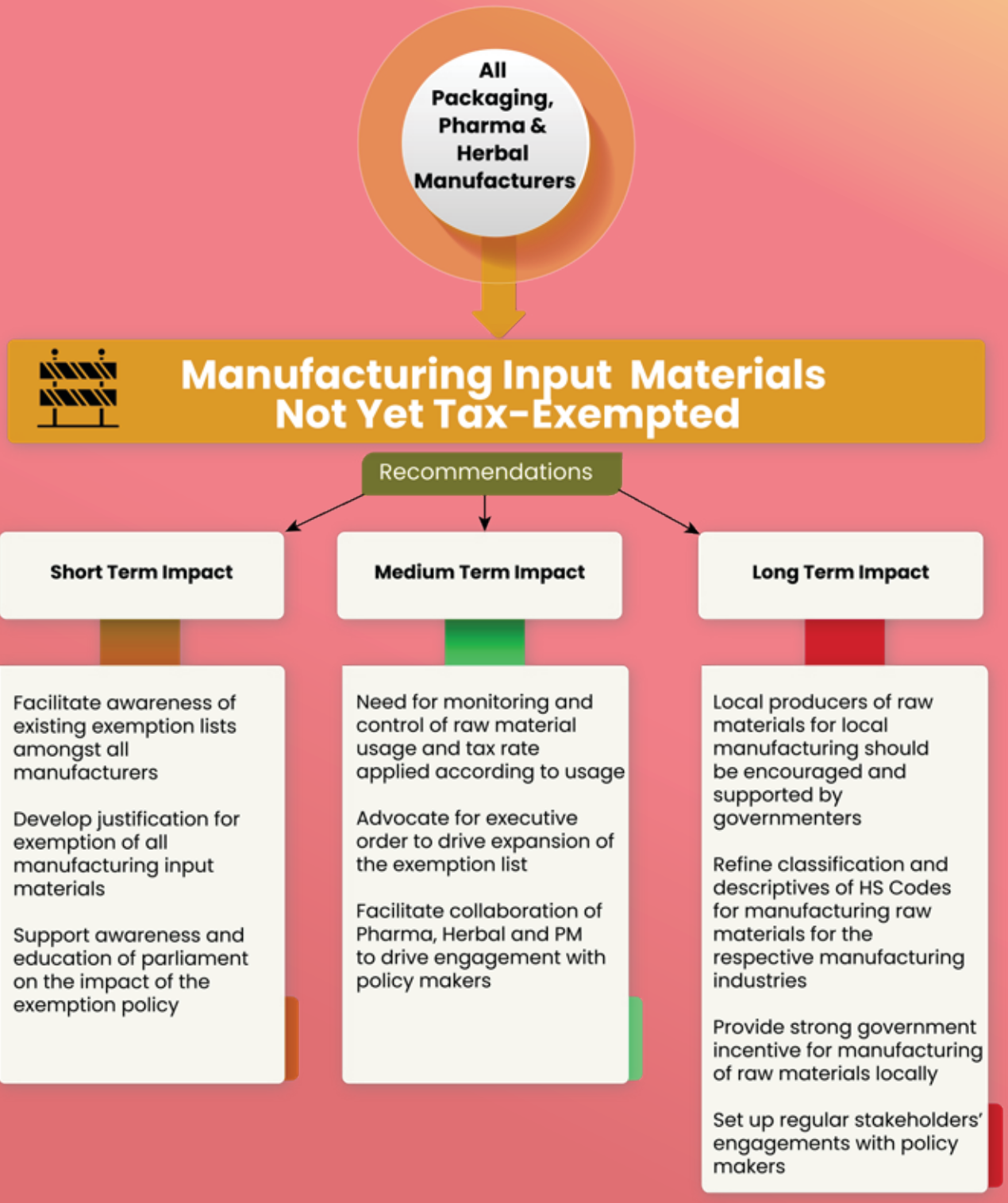
Figure 7.6: Managing The High Number of Import Taxes & Levies

Source: LiA Analysis, 2024.

Figure 7.7: Facilitating Collaboration & Partnerships

Source: LiA Analysis, 2024.

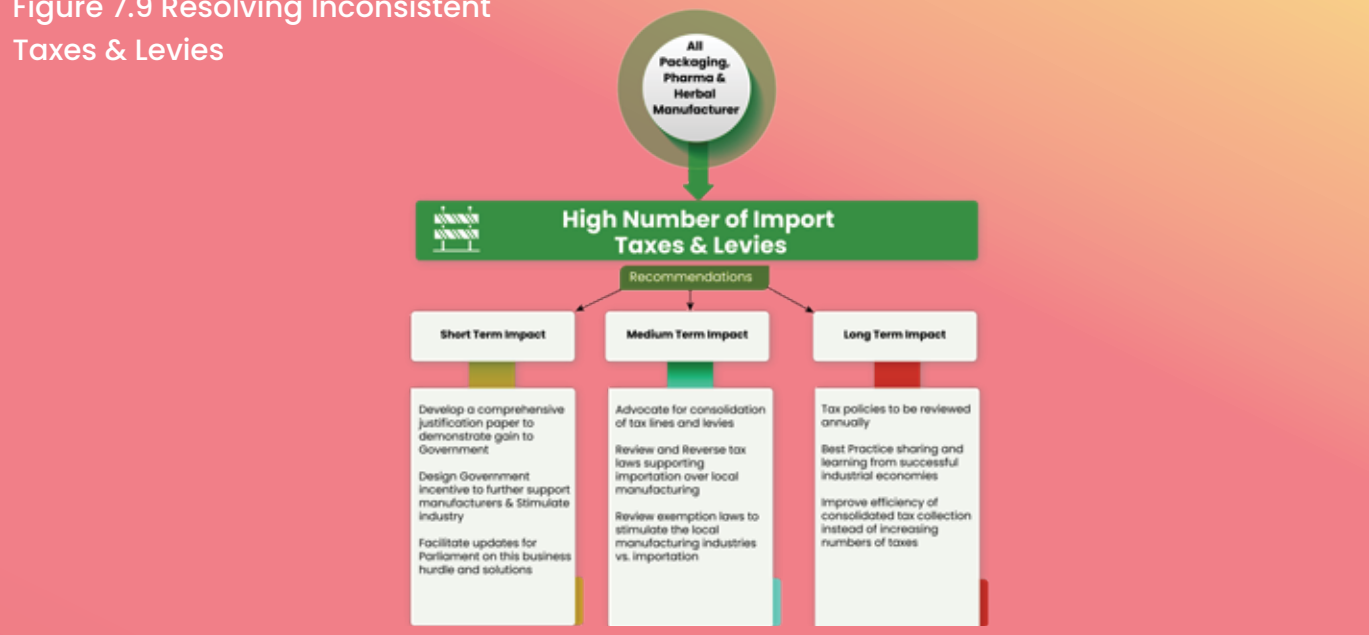
Figure 7.8 Addressing the Manufacturing Input Materials Not Yet Tax-Exempted



Source: LiA Analysis, 2024.

7.3 How To Make It Happen: Responsibilities & Timelines

Figure 7.9 Resolving Inconsistent Taxes & Levies



Resolving Inconsistent Taxes & Levies – Responsibilities & Timelines

Government of Ghana

Within 6 months:
Review and Update details of Published taxes and levies to ensure transparency

Within 12 months:
Set up a Special Task Force to review tax administration in general and exemption laws specifically to make it work for the Government and the acceleration of local manufacturing capacities especially in priority sectors.

18 months & Beyond:
Implement the recommendations of the task force through executive orders and or legislative work

Ghana JET

Within 6 months:
Support the setup of workshop with Packaging and Herbal manufacturers to facilitate Education of all stakeholders on tax administration in general and tax exemption laws for their sectors specifically.

Within 12 months:
Sponsor the strengthening of collaboration between local manufacturers within the priority sectors e.g. Pharma to speak with one voice as input into the Special Task Force

18 months & Beyond:
Support advocacy for the implementation of the Presidential task force outputs

Local Manufacturers through their Associations

Within 6 months:
Set up a working partnership with all members of individual groups within the local pharmaceutical and herbal medicine manufacturing value chain

Within 12 months:
Raise technical working teams to make comprehensive inputs into tax administration laws in general and tax exemption laws specifically

18 months & Beyond:
Support advocacy for the implementation of the Special Task Force outputs

Source: LiA Analysis, 2024.

Figure 7.10 No Standards for Local Packaging Materials

No Standards for Local Packaging Materials – Responsibilities & Timelines

Government of Ghana

Within 6 months:
FDA to facilitate quality audit and assess quality needs for all packaging manufacturers

Within 12 months:
GSA & FDA to collaborate to define comprehensive standards for all PMs, establish quality control mechanisms & Quality assurance SOPs

18 months & Beyond:
Educate all stakeholders on newly established packaging standards as developed and facilitate monitoring, evaluation, and enforcement of the new quality

Ghana JET

Within 6 months:
Arrange visits for local manufacturers to tour the facilities of international companies to enhance quality and foster partnerships. Promote local exhibitions to highlight advancements in quality and technology to a broader range of industry stakeholders

Within 12 months:
Promote global collaboration between local manufacturers and international players to accelerate standard upgrades through partnerships, joint ventures, and new projects

18 months & Beyond:
Track and support new projects arising from established collaborations to ensure their success

Local Manufacturers through their Associations

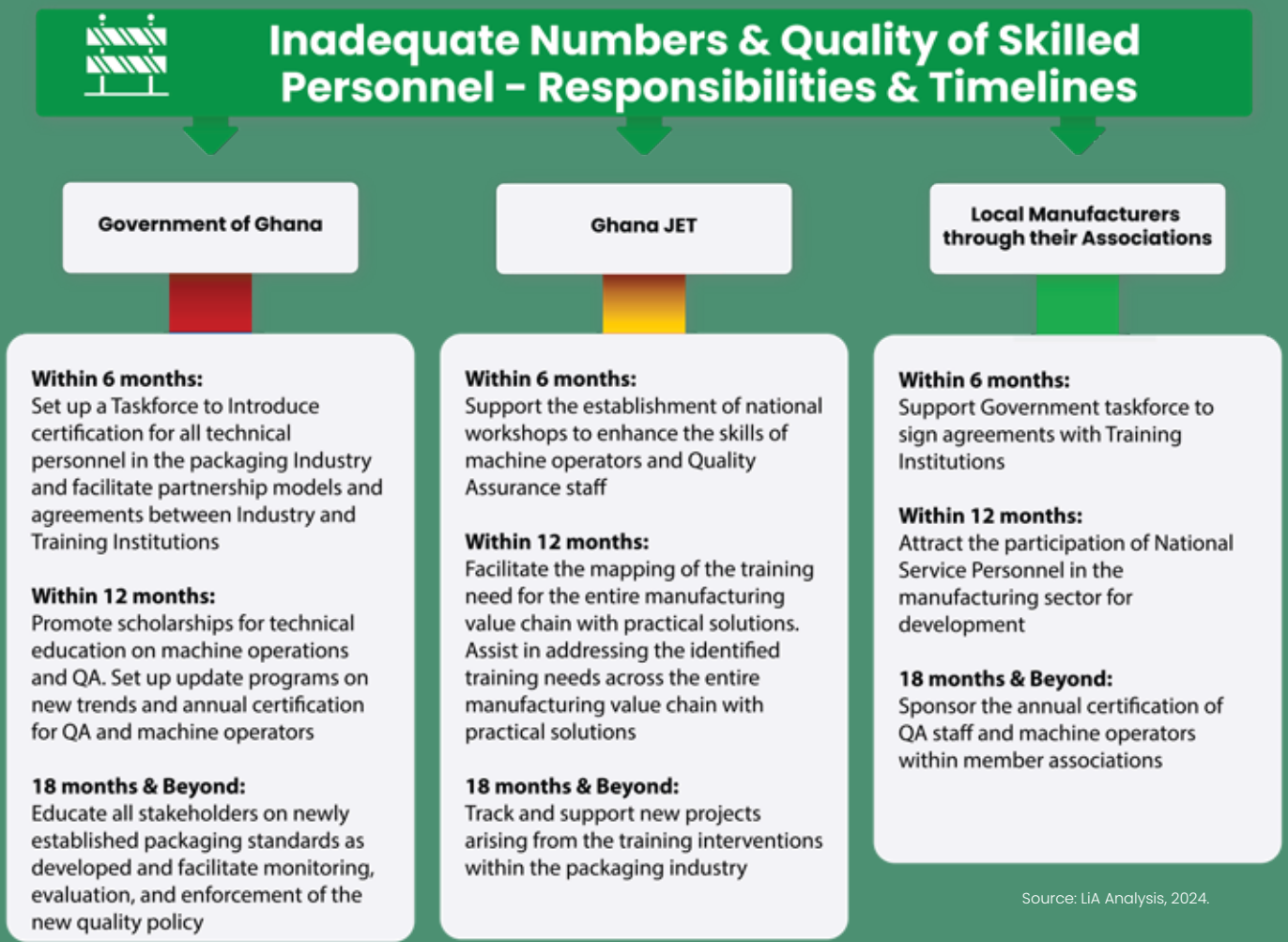
Within 6 months:
Promote within member of the Associations the use of GSA facilities as a vendor for testing of quality of PMs

Within 12 months:
Support workshops within members to promote technologies and techniques to improve GMP to meet quality requirements

18 months & Beyond:
Raise technical working teams to promote quality programs of FDA & GSA to further gain regional confidence and attract FDI

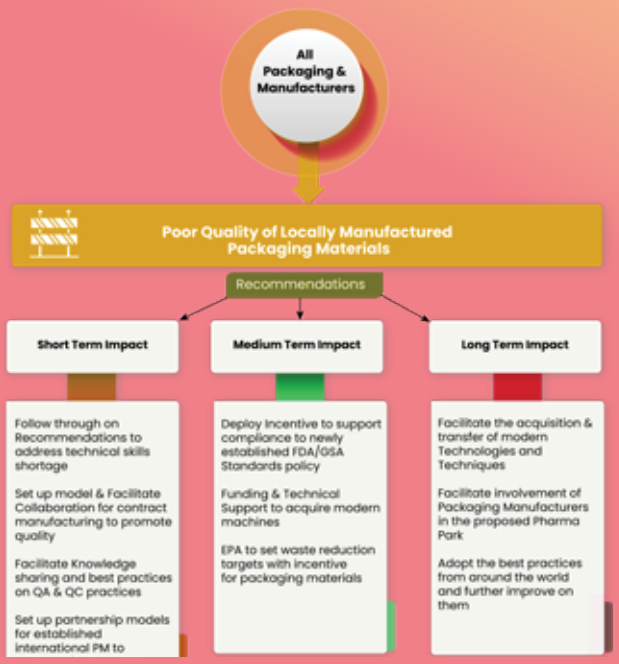
Source: LiA Analysis, 2024.

Figure 7.11 Inadequate Numbers and Quality of Skilled Personnel



Source: LiA Analysis, 2024.

Figure 7.12 Addressing Poor Quality of Local PMs



Poor Quality of Locally Manufactured Packaging Materials - Responsibilities & Timelines

Government of Ghana

Within 6 months:
EPA to set waste reduction targets with incentive for PMs

Within 12 months:
Government should provide financial assistance and technical support to help acquire modern machinery and enhance capacity

18 months & Beyond:
Implement incentives to encourage adherence to the newly established standards policy

Ghana JET

Within 6 months:
Support the establishment of national workshops to adopt best practices from around the World

Within 12 months:
Facilitate the acquisition and transfer of modern technologies and techniques through partnership with International players

18 months & Beyond:
Track and support new projects arising from the partnership agreements signed

Local Manufacturers through their Associations

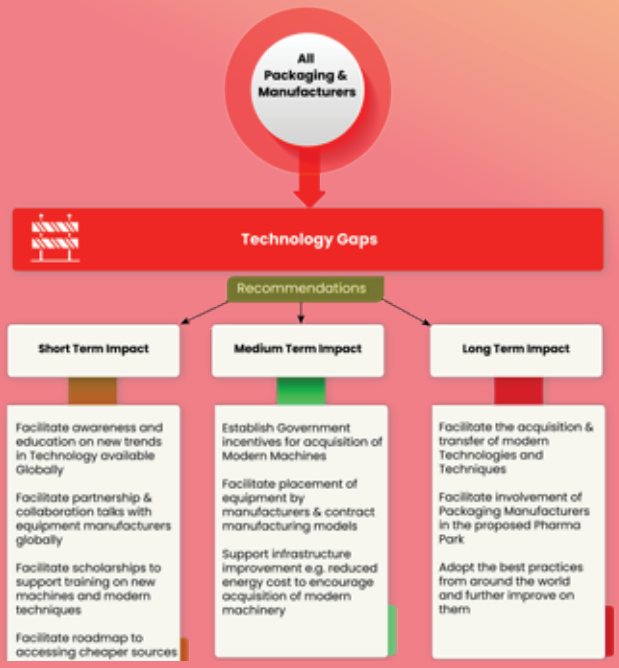
Within 6 months:
Set up a working partnership with all members of individual groups within the local pharmaceutical and herbal medicine manufacturing value chain on the Pharma Park project

Within 12 months:
Facilitate knowledge sharing and best practices on QA & QC Practices and Set up model and facilitate collaboration for contract manufacturing to promote quality

18 months & Beyond:
Adopt the best practices around the World and further improve on them

Source: LiA Analysis, 2024.

Figure 7.13 Closing the Gaps in Technology



Technology Gaps - Responsibilities & Timelines

Government of Ghana

Within 6 months:
Reassess and revise government incentives for acquiring modern machinery to ensure they support long-term planning and stimulate local production

Within 12 months:
Government should: Arrange scholarships for training on new machinery and modern techniques. Develop strategies for accessing more affordable financing options to acquire advanced equipment

18 months & Beyond:
Promote infrastructure enhancements, such as lowering energy costs, to incentivize the acquisition of advanced machinery

Ghana JET

Within 6 months:
Facilitate participation of local manufacturers to trade roadshows internationally to facilitate awareness and education on new trends in technology available Globally

Within 12 months:
Facilitate partnership and collaboration talks with equipment manufacturers globally

18 months & Beyond:
Track and support new projects arising from the partnership agreements signed

Local Manufacturers through their Associations

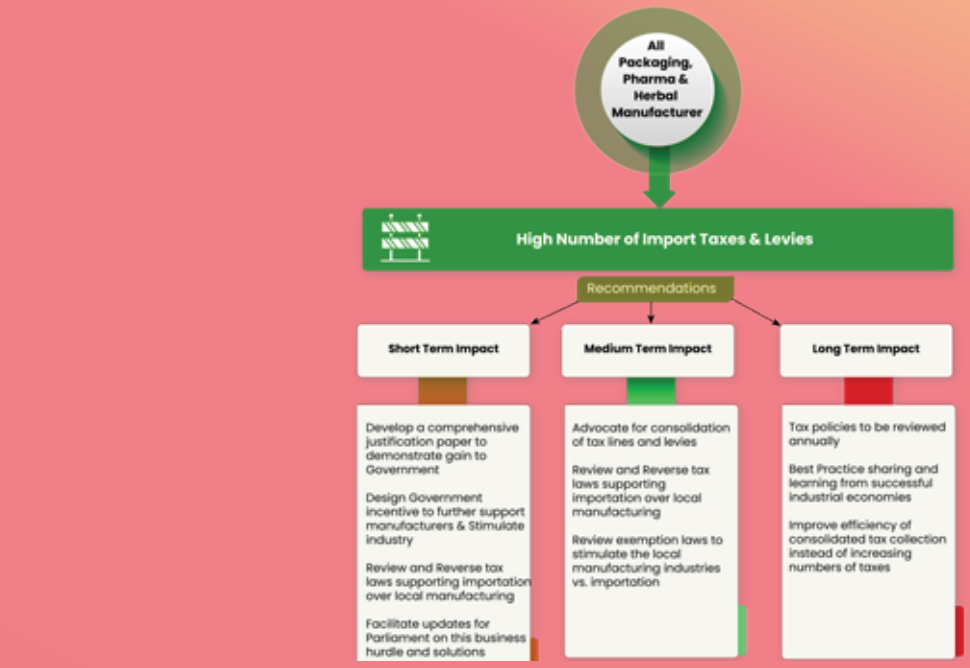
Within 6 months:
Set up a working partnership with all members of individual groups within the local pharmaceutical and herbal medicine manufacturing value chain on the Pharma Park project

Within 12 months:
Facilitate knowledge sharing and best practices on QA & QC Practices. Set up model and facilitate collaboration for contract manufacturing to promote quality

18 months & Beyond:
Adopt the best practices around the World and further improve on them

Source: LiA Analysis, 2024.

Figure 7.14 Managing the High Number of Import Taxes



High Number of Import Taxes & Levies - Responsibilities & Timelines

Government of Ghana

Within 6 months:
Review government incentives for local manufacturers to ensure they support long-term planning and stimulate local production

Within 12 months:
Set up a Special Task Force to review tax administration in general and multiple tax regimes specifically to make it work for the Government and accelerate improvement of local manufacturing capacities especially in priority sectors. Review and reverse tax laws supporting importation over local manufacturing

18 months & Beyond:
Implement the recommendations of the task force through executive orders and legislative work

Ghana JET

Within 6 months:
Advocate for the government initiatives and provide the necessary technical support for the local manufacturing associations to participate effectively

Within 12 months:
Support the enhancement of collaboration among local manufacturers in priority sectors, such as pharmaceuticals, to present a unified voice to the Special Task Force

18 months & Beyond:
Support advocacy for the implementation of the outputs from the Special Task Force

Local Manufacturers through their Associations

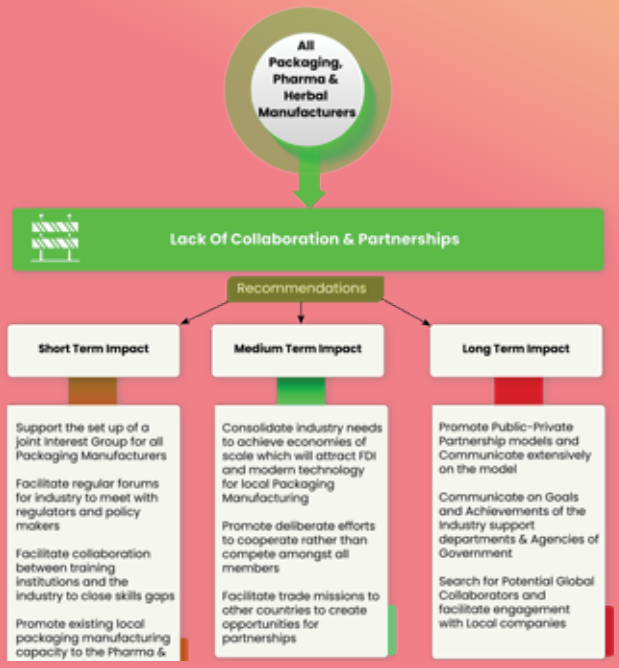
Within 6 months:
Create a detailed justification report to illustrate how government benefits from reviewing the tax regime. Evaluate and report on how the current tax regime favor imports over local manufacturing

Within 12 months:
Provide briefings to parliament on this business challenge and potential solutions

18 months & Beyond:
Support advocacy for the implementation of the recommendation from the Special Task Force

Source: LiA Analysis, 2024.

Figure 7.15 Facilitating Collaboration and Partnerships



Lack Of Collaboration & Partnerships - Responsibilities & Timelines

Government of Ghana

Within 6 months:
Promote partnerships between training institutions and industry to bridge the skills gaps

Within 12 months:
Advocate for Public-Private partnership models and ensure comprehensive communication about them

18 months & Beyond:
Develop a comprehensive communication strategy to highlight the activities, goals, and achievements of the Industry Support Group within government ministries, departments, and agencies

Ghana JET

Within 6 months:
Support the set-up of joint interest groups for manufacturers within the value chain in the priority sectors. Facilitate trade missions to other countries to create opportunities for partnerships

Within 12 months:
Consolidate industry needs to achieve economies of scale which will attract Investment and modern technologies for local manufacturers

18 months & Beyond:
Search for potential Global collaborators and facilitate engagement with local companies

Local Manufacturers through their Associations

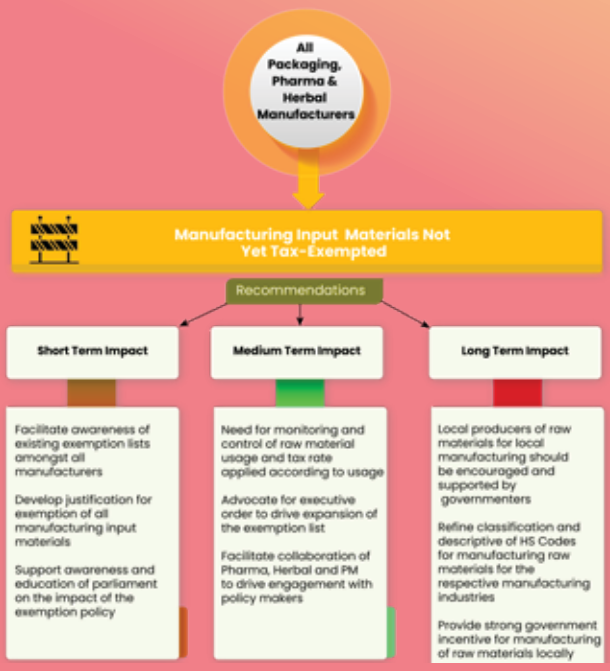
Within 6 months:
Promote existing local packaging manufacturing capacity to the pharma and herbal medicine manufacturing groups

Within 12 months:
Facilitate regular forums for industry to meet with regulators and policy makers

18 months & Beyond:
Promote deliberate efforts to cooperate rather than compete amongst members

Source: LiA Analysis, 2024.

Figure 7.16 Addressing The Manufacturing Input Materials Not Yet Tax - Exempted



Manufacturing Input Materials Not Yet Tax-Exempted - Responsibilities & Timelines

Government of Ghana

Within 6 months:
Establish data and framework for Monitoring and Control of raw materials usage and the tax rate applied according to usage

Within 12 months:
Set up a Special Task Force to review tax administration in general and manufacturing input materials exemption laws specifically to make it work for Government and accelerate improvement of local manufacturing capacities especially in priority sectors

18 months & Beyond:
Enact the task force's recommendations through executive orders or legislative measures. Refine the classification and descriptions of HS codes to ensure accurate

Ghana JET

Within 6 months:
Support workshops and seminars with local manufacturers to facilitate Education of all stakeholders on tax administration in general and tax exemption laws for their sectors specifically

Within 12 months:
Support the enhancement of cooperative efforts among local manufacturers in priority sectors, such as pharmaceuticals, to present a unified voice to the Special Task Force

18 months & Beyond:
Support advocacy for the implementation of the outputs from the Special Task Force

Local Manufacturers through their Associations

Within 6 months:
Facilitate awareness of existing exemption lists amongst all manufacturers and set up a technical team to develop justification for exemption of all manufacturing input materials

Within 12 months:
Provide briefings to parliament on this business challenge and potential solutions

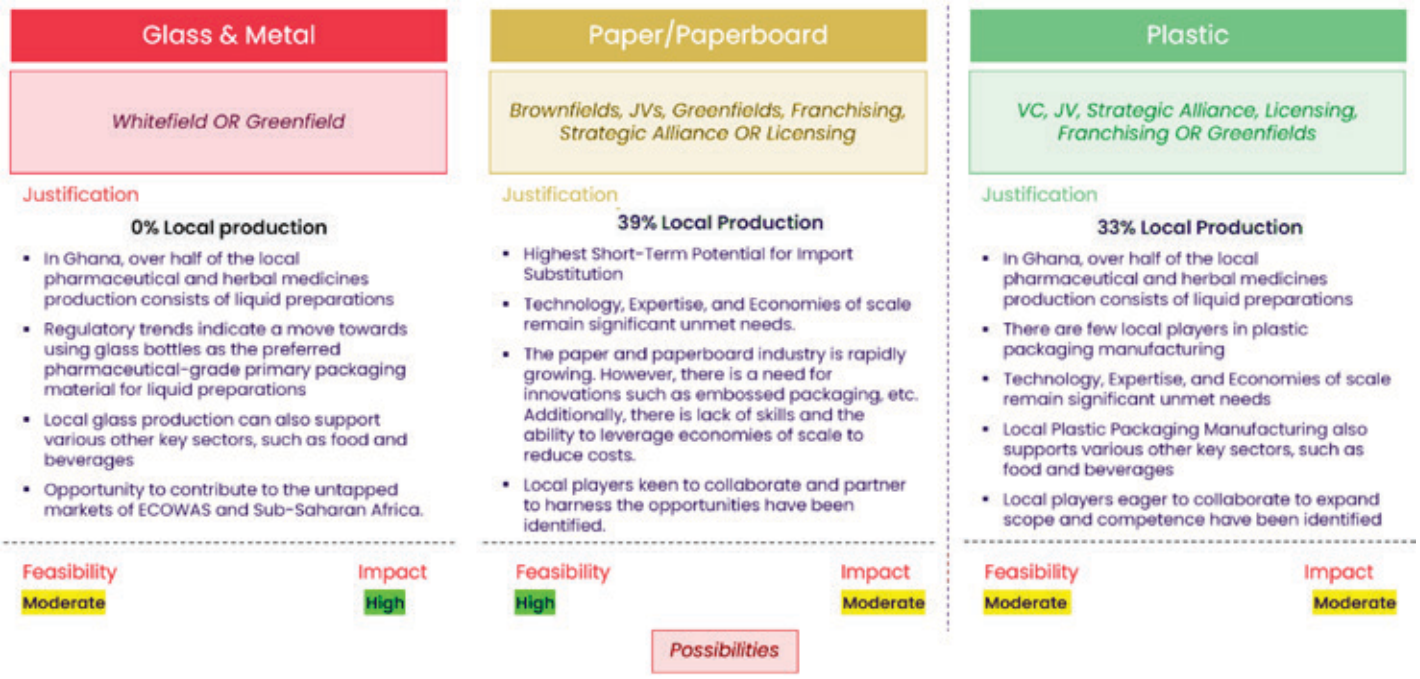
18 months & Beyond:
Support advocacy for the implementation of the Special Task Force outputs. Support members and pool resources to invest in raw materials production

Source: LiA Analysis, 2024.

7.4 Investment Opportunity

There is need to Strengthen the Business Case for Early Harnessing of Opportunities

Figure 7.17 Investment Opportunity



Source: LiA Analysis, 2024.

Challenges Of Conducting This Research & Solutions

- Limitations of conducting this research
- Measures taken to Improve reliability & quality of the research
- Recommendations for further research

Chapter

08

This chapter focuses on the limitations encountered in the course of conducting this research and the measures taken to address them. It also contains recommendations for future research.

8.1 Challenges of conducting this research

Conducting this market research on Scoping the Ghana Packaging sector and opportunities to improve supply to the pharma manufacturing industry presents several limitations. These can broadly be categorized into data-related issues, logistical challenges, and market-specific factors:

1. Data Availability and Quality

I. Limited or Inconsistent Market Data:

Accurate and up-to-date data on the pharmaceutical packaging market in Ghana was difficult to obtain. The research observed lack of reliable databases or reports from government. To mitigate this limitation, we used a bottom-up approach in collecting individual company data and aggregating the data for the entire market

II. Fragmented Company Data:

The pharmaceutical packaging sector in Ghana is quite fragmented, with many small players and informal market segments that are not well-documented. It was observed that for most companies, multiple teams are responsible for managing data regarding local and imported PMs. This requires engagement with multiple teams in each company to receive, review and harmonize the data from each company before aggregating the data for the entire market.

III. Confidentiality Issues:

Some Companies were reluctant to share the data about their packaging processes, suppliers, or market strategies, leading to delays in data collection. To mitigate this challenge, a non-disclosure agreement was proposed to the companies in this category which has fully mitigated this risk

2. Market Accessibility

I. Limited Access to Industry Experts:

The pool of experts influencing different aspects of the pharmaceutical packaging within Ghana is quite diverse and require a wider stakeholder mapping than originally envisioned. Access to some of the stakeholders are limited and led to delays in finalizing the interviews within the short timelines for the research.

Research Challenges: The study faced challenges with data availability, market accessibility, and cooperation among industry players. Issues included inconsistent market data, limited access to experts, geographical challenges, and reluctance to share information.

I. **Geographical Challenges:**

Most of the stakeholders preferred face-to-face engagements over virtual/ online engagements. This preference is made more challenging because the manufacturing plants tend to be widely scattered around different regions of the country and not clustered in one industrial zone. Conducting on-ground research in Ghana thus become challenging due to transportation issues, long working hours spent in traffic, and logistical difficulties in accessing different industrial areas.

2. Coopetition vs Competitive Mindset & Behaviours

I. **Opaque Information Landscape:**

There is an apparent lack of willingness to readily co-operate with other industry players and share data in order to shape and build the market. Players within the industry could be helped to further appreciate the benefit of such co-operations.

These limitations highlight the need for careful planning, use of multiple data sources, and adaptive research strategies in mitigating their impact on the quality and reliability of the study.

8.2 Measures taken to Improve reliability & quality of the research

In mitigating the limitations encountered in the research, the following actions were taken to reduce the barriers and improve the quality and reliability of both qualitative and quantitative data gathered. These actions are centred around improving data collection, improving stakeholder engagement, and deploying good understanding of market dynamics. Here are the summary of key actions taken:

1. Data Triangulation

I. **Multiple Data Sources:**

Relying on a single data source can lead to skewed insights. The research utilized a mix of primary and secondary data sources, including government reports, industry publications, expert interviews, and company data sets provided.

II. **Cross-Validation:**

Cross-validate findings from different sources to ensure consistency and accuracy. For example, multiple interviews were carried out with different employees to enable us confirm each company's data.

2. Leverage Local Expertise and Networks:

Leveraging the network of the co-operating companies to reach out to other members of the manufacturing groups

3. Enhance Data Collection Techniques

I. **Field Visits:**

On-ground research was conducted including site visits to manufacturing facilities, to organize the data not only for the purpose of the research but also to help the companies gain first-hand insights into their own individual data.

4. Improve Stakeholder Engagement

I. **Involving Key Stakeholders:**

The research engaged with a wide range of stakeholders, including manufacturers, regulators, policy makers and industry gate keepers, to gather diverse perspectives and ensure comprehensive coverage of the market, and all relevant insights.

II. **Feedback Loops:**

The research created feedback loops with stakeholders to validate findings. This helped to refine the research approach and improved the relevance of the findings.

Mitigating Research Limitations: Actions taken include using multiple data sources, cross-validation, leveraging local expertise, enhancing data collection with field visits, and improving stakeholder engagement through feedback loops.

8.3 Recommendations for further research

The pharmaceutical manufacturing sector in Ghana is a critical area for research due to its importance for public health, economic development, and regional trade. As the sector evolves, several areas require further exploration to support its growth and sustainability. Here are some key areas for future research:

1. Mapping of the Local Pharmaceutical Manufacturing Value Chain:

Mapping of the Entire Pharmaceutical Manufacturing Value Chain and the journey plan towards making Ghana a Pharmaceutical Manufacturing hub for West and Sub-Sahara Africa.

2. Workforce Development

I. Skills Gap Analysis & Development Plan:

Conduct research on the existing skills gap in the pharmaceutical manufacturing sector, focusing on the availability of skilled labour, training needs, and the role of educational institutions in meeting industry demands. The practical and cost-effective plan to fill the gaps should also be included.

II. Workforce Attraction & Retention Strategies:

Explore strategies for attracting and retaining skilled professionals into the Pharmaceutical manufacturing value-chain, particularly in the face of global competition

3. Public-Private Partnerships (PPPs)

I. Collaboration Models:

Explore the role of public-private partnerships in advancing the pharmaceutical manufacturing sector, focusing on successful models and potential areas for collaboration, such as R&D, infrastructure development, and capacity building. This research can further highlight how to make the proposed Pharmaceutical Park a reality.

II. Government Support Mechanisms:

Research the effectiveness of government support mechanisms, such as incentives, subsidies, and policy frameworks, in promoting local pharmaceutical manufacturing.

Future Research Areas: Key areas for future research include mapping the pharmaceutical value chain, addressing workforce development, and exploring public-private partnerships to advance the sector in Ghana.

III. Private-Private Partnerships and Collaboration Models

Further development of the Private-Private Partnerships model for collaboration with stakeholders within the Packaging manufacturing sector.

4. Impact of Policy and Economic environment:

I. Policy Analysis:

Investigate the impact of national policies on the pharmaceutical manufacturing sector, including tax policies, trade regulations, and healthcare policies. Research could also assess the role of government in creating an enabling environment for industry growth.

II. Economic Impact Studies:

Conduct economic impact studies to quantify the contribution of the pharmaceutical manufacturing sector to Ghana's economy, including job creation, GDP contribution, and healthcare outcomes.

References & Appendices

- Appendices

This chapter contains all the primary data that were obtained during this research

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Appendix 1 – L.I. 2255

L.I. 2255

VALUE ADDED TAX (EXEMPTION OF ACTIVE INGREDIENTS, SELECTED INPUTS AND SELECTED DRUGS OR PHARMACEUTICALS) (AMENDMENT) REGULATIONS, 2017

IN exercise of the power conferred on the Minister responsible for Finance by section 64 and paragraphs 14 (2) and 14 (3) of the First Schedule to the Value Added Tax Act, 2013 (Act 870), these Regulations are made this 31st day of July, 2017.

Schedule to L.I. 2218 amended

The Value Added Tax (Exemption of Active Ingredients, Selected Inputs and Selected Drugs or Pharmaceuticals) Regulations, 2015 (L.I. 2218) is amended by the substitution for Part A and Part B of the Schedule of

"SCHEDULE
PART A
Active Ingredients and Selected Inputs
(regulation 1)

ACTIVE PHARMACEUTICAL INPUTS AND EXCIPIENTS

1. 5-Fluorouracil
2. Abacavir
3. Abiraterone
4. Aceclofenac

543. Glass Bottles, Vials, And Ampoules (Glass) For Pharmaceutical Products
544. Caps and Closures for Glass Bottles, Vials, and Ampoules for Pharmaceutical Products
545. Flexible Foils, Films and Laminates for Blister Packing Pharmaceuticals
546. Infusion Bags and Bottles and their Cues and Stoppers
547. Pharmaceutical Dosage Dispensers
548. Packets, Jackets, Labels and Drug Information Inserts for Pharmaceutical Packaging
549. PVC, PVDC Films for Blister Packing Pharmaceutical Products
550. Tubes for Packing of Pharmaceutical Products
551. Tablet Coating Material Readymix
552. Empty Hard Gelatin Capsules.

Appendix - 2

FOCUS GROUP DISCUSSION: Expanding Opportunities In Local Pharma Packaging Manufacturing.

Workshop Notes.

Group: Pharmaceutical Packaging Industry
No. of Participants: 15
Date: August 8, 2024.

Introduction

The Ghanaian pharmaceutical packaging industry, comprising both local production and imports, offers a diverse array of materials such as labels, cartons, and blister packs. While some raw materials are locally sourced, including recycled paper and ink, others are imported, such as virgin paper and specialized labelling materials. To enhance local manufacturing, it is recommended to adopt UV fluorescent technology, invest in embossment machines, and explore smart packaging solutions.

The industry faces several challenges, including high technology acquisition costs, a shortage of skilled labour due to the absence of formal training institutions, and limited market demand. Quality assurance remains critical, particularly for low-volume printing. Addressing these challenges necessitates targeted capacity-building efforts and strategic investments.

Although specific regulatory requirements were not outlined during the workshop, constraints include competitive pricing, unfair tax laws, material availability, and transportation logistics. Confidence in local suppliers is lacking, and capacity limitations impact on the industry.

To support local packaging manufacturers, it is essential to focus on technology upgrades and capacity building, advocate for fair tax policies, and explore collaboration through sponsorship for virgin paper production, agro-production of raw materials, and international exchange programs. Strengthening industry ties and engaging with donors will further enhance the sector

SECTION 1:

Types of Materials and Players

1. **Lead-it Africa: What are the different Packaging Materials you produce for local Pharma Manufacturers?**

   - ***Response:*** Pharmaceutical packaging industry utilizes diverse materials, including plastics, polymers, paper,

Background

The Ghanaian pharmaceutical packaging industry, comprising both local production and imports, offers a diverse array of materials such as labels, cartons, and blister packs. While some raw materials are locally sourced, including recycled paper and ink, others are imported, such as virgin paper and specialized labelling materials. To enhance local manufacturing, it is recommended to adopt UV fluorescent technology, invest in embossment machines, and explore smart packaging solutions.

The industry faces several challenges, including high technology acquisition costs, a shortage of skilled labour due to the absence of formal training institutions, and limited market demand. Quality assurance remains critical, particularly for low-volume printing. Addressing these challenges necessitates targeted capacity-building efforts and strategic investments.

Although specific regulatory requirements were not outlined during the workshop, constraints include competitive pricing, unfair tax laws, material availability, and transportation logistics. Confidence in local suppliers is lacking, and capacity limitations impact on the industry.

To support local packaging manufacturers, it is essential to focus on technology upgrades and capacity building, advocate for fair tax policies, and explore collaboration through sponsorship for virgin paper production, agro-production of raw materials, and international exchange programs. Strengthening industry ties and engaging with donors will further enhance the sector

SECTION 1:

Types of Materials and Players

1. **Lead-it Africa: What are the different Packaging Materials you produce for local Pharma Manufacturers?**

   - ***Response:*** Pharmaceutical packaging industry utilizes diverse materials, including plastics, polymers, paper, glass, and aluminium foil, each with distinct characteristics and specific applications
   - Labels
   - Cartons
   - Skillets
   - Leaflets
   - Sachets
   - Strips
   - Tamper -proof Seals
   - Blister Packs

2. **Lead-it Africa: What raw materials do you source Locally versus Imported?**

   - ***Response:*** Pharmaceutical packaging industry heavily relies on imported raw materials, with only a small percentage sourced locally. Notably, recycled paper and ink are produced domestically, while virgin paper, plates, and various other materials are imported
   - locally: recycled paper, ink
   - Imported: Virgin Paper, Plates, ink, Glue, SAP, BOPP, Foil, labelling materials: PPs, PPC, PPW, PET, Silica gel, starch, Laminate films, Consumables, chipboard

SECTION 2: Market outlook

1. **Lead-it Africa: What Technology, Equipment & Innovation could further improve prospects for your business?**

   - ***Response:*** Innovative technologies and equipment, such as UV fluorescent printing, embossment machines, smart packaging, and anti-counterfeiting features, play a crucial role in enhancing prospects for the pharmaceutical packaging industry.

     - UV florescent,
     - Embossment machines
     - Recycle machine for paper
     - Smart packaging
     - Digital traceability
     - Security features
     - Automation

- Shelf-ready packaging
- Anti-counterfeiting features: use of logo/special print on packaging

2. Lead-it Africa: What Specific regulatory requirements do you have in your area of Packaging manufacturing?

- ***Response***: The absence of specific regulatory procedures, standards, or requirements from regulators such as the FDA, GSA, and Customs poses a notable challenge for industry players in their production processes.

3. Lead-it Africa: What are the key Infrastructure & Logistics needed for effective Local Packaging Manufacturing?

- ***Response:*** The essential infrastructure and logistics for effective local packaging manufacturing include facilities for design, fabrication, and raw material shipment.
- Designs
- Fabrication
- Shipment of raw materials

4. Lead-it Africa: What do you consider key constraints in the Regulatory & Policy Environment?

- ***Response:*** Pharmaceutical packaging industry faces significant constraints, including the lack of regulation for labelling and materials, absence of industry standards from the FDA and GSA, and poorly defined materials used in packaging.

- Labelling and materials for labelling in packaging are not regulated
  - FDA and GSA have no standards to guide the pharma packaging industry
  - Materials in the pharma packaging industry are not well defined

SECTION 3: Competitive landscape

1. Lead-it Africa: What concerns do you have around:

a. Technology & Equipment
- ***Response:***
  - They are expensive to acquire
  - Low interest in adopting new technologies

b. Skilled Labour

c. Response: Staff usually learn on the job.
- There are no institutions training people for the industry

d. Investment & Funding

e. ***Response***: High cost of capital

f. Market Demand & Scale
- ***Response***: Low demand

g. Quality Assurance & Standardization

- ***Response***:
  - low quality of printing due to low quantity demand
  - Last-minute requests
  - Demand fluctuations and requests coming in at different times lead to variations in productions

SECTION 4: Challenges and Opportunities

1. Lead-it Africa: What do you consider to be the Most Significant Challenges facing the Pharma Packaging Manufacturing?

- ***Response:*** the key challenges in pharmaceutical packaging manufacturing encompass pricing pressures, regulatory hurdles, material availability, production complexities, logistics, and workforce development.
- Competitive pricing
- Unfair tax law
- materials
- finishing challenges
- transportation
- lack of confidence in the local suppliers
- lack of capacity
- the need to train workers
- frequent price changes in raw materials

1. **Lead-it Africa: What 3 things must we ask the Sponsor to focus on to better support Local Packaging Manufacturers?**

- ***Response:*** To better support local packaging manufacturers, the sponsor should prioritize technology and machinery upgrades, capacity building, and ensuring access to essential raw materials.
- Technology and better machinery
- Capacity building
- Raw materials: paper production, inks, finishing materials
- Training new skills and new entrants
- Fair tax laws
- Fair competition
- Strategic collaboration
- Direct investment
- Promoting local packaging through VAT exemptions
- VAT exemption for raw materials especially paper and ink
- Industrial machinery for offset glossy printing
- Funding

2. **Lead-it Africa: What Opportunities do you see for Collaboration & Partnership? HOW?**

- ***Response:*** collaboration among industry players in the pharmaceutical packaging sector can yield valuable benefits. By sharing technologies, advocating collectively etc. will strengthen and enhance the industry.
- sponsorship and collaboration for virgin paper production
- Agro-production of paper raw materials
- Strong collaboration between industry players
- Organizational technology transfer
- International exchange programs
- Donors


RAW MATERIALS
LOCALLY
IMPORTED


2

Appendix - 3

FOCUS GROUP DISCUSSION: Expanding Opportunities In Herbal Medicine through improved Local Product Packaging.

Workshop Notes.

Group: Herbal Manufacturers
No. of Participants: 13
Date: August 8, 2024.

Introduction

- **Dosage Forms and Packaging Materials:** Local herbal manufacturers primarily produce capsules and liquids, followed by powders, teas, ointments, soaps, tablets, granules, plant parts, and pastes. Each dosage form requires specific packaging materials, such as HDPE plastics, gelatin capsule shells, jute woven bags, holograms, PET bottles, and blister films.

- **Market Outlook:** To improve prospects for herbal medicine packaging, manufacturers seek enhancements in printing quality, bottle design, safety seals, and security features. The fastest-growing segments are oral and liquid products, with high demand for PET bottles and liquid containers.

- **Regulatory and Policy Requirements:** Regulatory oversight on packaging is minimal, with limited checks and no duty exemptions for imported herbal packaging materials. There is a need for stricter regulations and better enforcement to ensure quality and safety.

- **Competitive Landscape:** Key concerns for local packaging manufacturing include safety, regulatory standards, technology, environmental impact, cost, quality, and the need for capacity building and funding. Health and safety of workers and high production costs are significant risks.

- **Recommendations for Sponsors:** Sponsors should focus on providing financial and technical support, research and development, and tax exemptions for imported raw materials. Access to long-term capital investments and promoting local packaging through VAT exemptions are also crucial for supporting local manufacturers.

SECTION 1:

Types of Materials and Dosage forms

1. **Lead-it Africa: What are the different dosage form you produce in your production facility?**

   - ***Response:*** capsules and liquids are the most manufactured products among herbal manufacturers followed by powders, teas and ointments liquids

- powders
- teas
- ointment
- soap
- tablets
- granules
- plant parts
- paste

2. **Lead-it Africa: What are the different packaging materials you require for the different dosage forms?**

- ***Response:***
- **Capsules:** HDPE Plastic, gelatin capsules shells, plastic Amber bottle, label, carton, jacket, leaflet
- **Powders:** jute woven bags, punches, container, label, carbon, kaft (plastic/paper), leaflet
- **Teas:** hologram, carton, tea bag wrap, tea bag film, tea bag thread, box, leaflet
- **Ointments:** ointment tubes, labels, cartons, plastic Amber bottle, aluminium tube, paper box, carton, leaflet
- **Liquids:** PET Amber bottle, HDPE, jacket, label, hologram (tamper proof safety, carton), leaflet
- **Granules:** Labels, containers, cartons, leaflet
- **Tablet:** blister film, container, labels, carton
- **Soap:** container, plastic film, paper box, aluminium foil, carton
- **Plant parts:** plastics, label

3. **Lead-it Africa: What type of improvements do you seek on existing packaging materials to further improve prospects for herbal medicine?**

- ***Response:*** the need to drop PET bottles to Pharma bottles, pharma guide on packaging materials, environmentally friendly packaging
- Printing quality
- Bottle design
- Safety seal features (child lock)
- Security features on labels, capsules shells, jacket (authenticity)
- Improve jacket design (emboss)
- Bar coding

4. **Lead-it Africa: What other types of packaging could further improve prospects for herbal medicine?**

- ***Response:*** Hologram, HDPE

5. **Lead-it Africa: What do you consider to be the Fastest Growing Segments or has the Highest Demand products for herbal medicine?**

- ***Response:***
- Orals: PET bottles
- Liquids: liquid containers

6. **Lead-it Africa: What Specific regulatory / policy requirements do you have around Packaging materials?**

- ***Response:*** regulatory oversight on packaging is minimal, with limited checks and no duty exemptions for imported herbal packaging materials
- Regulators are very relaxed on packaging
- No duty exemptions for herbal packaging materials imported
- Imported items are only cleared at the port, customs and GSA do not do further checks on them

7. **Lead-it Africa: What Risks & Dangers do you perceive for the Local Packaging Manufacturing business?**

- ***Response:*** Health and safety of workers and High cost of production

8. **Lead-it Africa: What concerns do you regarding local packaging manufacturing for herbal medicine:**

- ***Response:*** Key concerns in local herbal medicine packaging are safety, regulatory standards, and technology, along with environmental

- impact, cost, quality, and the need for capacity building and funding.
- Safety issues: product Security, hologram, safety seals, QR code
- Regulation of packaging materials
- Technology/machinery
- Recycling for credit
- Environmental pollution and considerations of refill strategy for lesser cost: use of ecofriendly materials
- Cost of input
- Quality of packaging
- Capacity building /training of personnel for packaging company
- Funding for expansion of local manufacturers(kantanka)

9. Lead-it Africa: What 3 things must we ask the Sponsor to focus on to better support Local Packaging Manufacturers for herbal medicines?

- ***Response:*** Sponsors should focus on providing financial and technical support, along with research and development. Tax exemptions and access to long-term capital investments are also essential for supporting local packaging manufacturers.
- Finance support towards packaging and promotion
- Technical Support
- Research and development
- Tax exemption on our imported raw material
- Expansion of local packaging companies through capital/ financial injection
- Providing workshop and education on operations
- Access to long term capital investment
- Support with policy on packaging materials importation
- Direct investment
- Promoting local packaging through VAT exemptions
- VAT exemption for raw materials especially paper and ink
- Industrial machinery for offset glossy printing
- Funding

10. Lead-it Africa: What Opportunities do you see for Collaboration & Partnership? HOW?

- ***Response:*** There should be involvement of stakeholders such as the FDA, GSA, EPA, CPMR, Noguchi
- Collaboration with governments suspend the importation
- Research and development of product
- Continuous engagement with all relevant stakeholders on: product efficiency and product study labs










PACKAGING MATERIALS
different Packaging Materials
the different dosage forms?
Dosage Form
Capsules
Powders
Teas
Ointments

Appendix - 4

Local Pharma Packaging Manufacturing: Solutions-Finding Workshop.

Workshop Notes.

No. of Participants: 64
Date: August 28, 2024.

Introduction

The INNOV8 workshop took place on August 28th at La Palm hotel bringing together various stakeholders in the pharmaceutical industry including government officials, to tackle challenges in Ghana's pharmaceutical packaging industry. Key improvements include harmonizing tax policies, exempting raw materials, and fostering industry collaboration.

To boost the quality of local packaging materials, stakeholders recommend advanced technology, standard artwork specifications, and comprehensive training. Aligning the TVET system, enforcing strict standards, and investing in innovation are also crucial.

Increasing local manufacturers' capacity for large orders involves partnering with global producers, financial assistance, and regulating the dollar to cedi ratio. Expanding companies, improving access to finance, and reducing raw material taxes are essential. Employing experienced staff and supporting technological growth will also help reduce lead times and enhance efficiency.

SECTION 1:

Types of Materials and Dosage forms

1. **Lead-it Africa: Which of the concerns below will have the highest impact when addressed?**

   - ***Response:*** The stakeholders feedback indicates that inconsistent taxes and levies and the technology gap is crucial for the pharmaceutical packaging industry in Ghana. Additionally, improving the poor quality of locally manufactured packaging and reducing the number of import taxes and levies are essential for cost reduction and quality enhancement. Establishing standards for local packaging materials will ensure consistency and safety. Other concerns include the need for exempting input materials, increasing the number and quality of skilled personnel, fostering collaboration and partnerships, and enhancing the capacity for large volumes.

2. **Lead-it Africa: Which of the concerns below is relatively Easy and likely to be addressed quickly?**

- ***Response:*** The stakeholders feedback indicates that the top five relatively easy and likely to be addressed quickly issues in the pharma packaging industry include: inconsistent taxes and levies, poor quality of locally manufactured packaging, number of imported taxes and levies, delayed re-assessment of taxes and levies. Inadequate number and quality of skilled personnel, collaboration and partnership input materials not yet exempted

3. **Lead-it Africa: How can we address the concerns around inconsistent taxes and levies for PHARMA vs. HERBAL vs PACKAGING manufacturers for the same packaging materials?**

- ***Response:*** Stakeholders suggest equal tax exemptions for all, scrapping taxes on raw materials, and harmonizing levies. They recommend a fixed tax system, more companies on the exempted list, and maximum local manufacturing exemptions. Engaging stakeholders, maintaining a stable exchange rate, and standardizing pricing are also crucial. Similar tax incentives should be given to both pharma and herbal industries.
- All players in the pharma space should be excepted equally
- We wish the government scrap taxes on raw packaging materials to help sustain the local industry
- Harmonized tax levies for all manufacturers
- There should be harmony and fairness
- All taxes and levies to be combined and fixed to make it simple and fast
- Allow registration of more companies onto the exempted Pharma Companies list
- Legislation on maximum number of taxes and levies. There should be maximum exemption for local manufacturing
- Exempt them from all imported taxes and levies for inputs and charge reasonable VAT flat rates for their finished products
- All Pharma packaging materials must be duty free and tax free
- if there are going to be tax waivers, it should be for all stakeholders of the PHARMA, Herbal and packaging industry
- engaging all three stakeholders (pharma, herbal, and packaging with regulatory bodies
- there should be clear policy on tax and duty free for both herbal and pharma manufacturers materials
- The exchange rate should be same for six month to accommodate for the rate variation
- Standardization of pricing by requisite authority
- Proper description of the packaging material
- The government need to have consultations with stakeholders
- Similar taxes incentives should be given to the packaging companies only when the paper is imported for pharma purposes only
- Similar incentives should be given to the pharma industry must be given to the herbal industry so that they can also be competitive
- There should be a stable rate (flat) for all pharma / herbal so that local manufacturers of packages can give competitive prices
- Stakeholders engagement on flat rate
- The tax laws in Ghana should be analysed to identify the specific provision causing the inconsistency
- Consistent tax charges. Imported paper for pharma manufacturing should be exempted

4. **Lead-it Africa: How can we address the concerns around the number of import taxes and levies for manufacturing**

- ***Response:*** To address import taxes and levies for manufacturing, stakeholders suggest consolidating levies, implementing a flat rate, and revising tax policies annually. Lowering or eliminating import taxes for local manufacturers and removing taxes on essential commodities are also recommended. Simplifying the tax system and placing manufacturers in a special tax category will support local production and investment.

- All levies must be consolidated
- Giving a flat rate will help industries be productive and reduce price fluctuations
- Tax policies should be revised annually
- Work with the parliamentarians select committees on health
- There should be a flat rate on input of all classified items, for example HDPE 20 fortes containers.
- Lower or no import taxes for local manufacturers to make costing attractive to Pharma companies
- Taxes on certain essential commodities should be removed
- • Need to apply different tax rates for imports and locally manufactured items
- Import taxes and levies for manufactures should be reduced only to handling and cleaning charges because companies pay CIT
- The number of import taxes and levies should be reduced to cover only significant on relevant taxes specific to the product being imported
- In order to encourage production of packaging materials locally, taxes and levies must be reduced drastically so as to make it easier for manufacturers to invent in production
- By consolidating them
- All manufacturers need to be placed in a special category for imported taxes
- Reduce number of import taxes and levies.
- Import taxes exemption
- Taxes for manufacturer of packages maternal should be exempted

5. Lead-it Africa: How can we address the concerns around input materials that are not yet exempted from taxes and levies for manufacturer

- ***Response:*** To address tax and levy concerns for input materials, stakeholders suggest local production, government support, and creating a comprehensive input materials database. They recommend tax exemptions, engaging policymakers, and leveraging initiatives like one district one factory. Effective tracking, negotiating with suppliers, and reviewing tax laws are also crucial steps.
- If we can manufacturer from start production of virgin grade paper in Ghana
- Need to get investors or government support in the production of pharma addictive in Ghana
- Compressive database of all input materials of the industry should be documented and accessed
- Inputs materials for pharma / herbal should be exempted repeated for the local manufacturers of packaging material
- Stakeholders meeting to identify those materials to be concede for tax exemptions
- Stakeholder engagement with policy makers
- Effective manufacturing and tracking to ensure such materials are only used for pharmaceutical purposes
- The government should adjust through the one district one factory initiatives to help produce some of the raw materials here in Ghana and consider the price to make it cheaper to discourage importation
- Lobby with parliament to include such materials in the LI
- We need to be giving duty free from the government
- All inputs must be exempted for level playing ground
- There must be a monitory system by government is make sure such items usually importations and not directed
- Negotiate with supplier to share taxes
- Agreeing on a list with pharma and herbal companies and asking for exemption from government
- Tax law review to include such materials
- Inputs not exempted from taxes should be added

6. Lead-it Africa: How can we address the concerns around delayed re-assessment of taxes and levies for manufacturers?

- ***Response:*** To address delayed re-assessment of taxes and levies, stakeholders suggest involving all parties in drafting tax policies and setting clear

guidelines and deadlines. Digitalizing processes, regular annual re-assessments, and five-year monitoring can improve accountability. Collaborating with industry players, automating procedures, and having a dedicated GRA desk for Pharma re-assessment are recommended. Simplifying the tax system with flat rates and removing taxes on inputs can streamline the process.

- Encourage stakeholders participating in
- Ensure all stakeholders are participant in the initial drafting of taxes and tax policies
- Establish clear guidelines and deadlines for re-assessment procedures. This will improve accountability in the tax system
- Digitalization and training of personnel to make payments easy
- Regular re-assessment should be done after each financial year
- Abolish regulatory on re-assessment
- Five years in re-assessment will go a long way to help pharma industries
- Liaise with the domestic tax division of the GRA
- There must be a flat rate and technology to make payment easy
- Monitoring every five years
- By collaborating with industry players to know how to fix a rate, how it should be before increasing or decreasing
- I would like to see the taxes of inputs removed and flat rates introduced for finished production
- Taxes and levies to be paid must be knowing right from the beginning
- Decisions should be taken for manufacturers is known what they are in for
- Dedicated desk at GRA for Pharma re-assessment
- Reassessment procedures should be fully automated to prevent delays
- It should be done yearly
- Re-assessment should be done yearly
- It should be an annual exercise
- Since it is known to be delayed, let just shorten the timeline

7. **Lead-it Africa: What regulatory and policy inventions can help to further improve the quality of packaging materials on the market?**

- ***Response:*** To improve the quality of local packaging materials, manufacturers should adopt advanced technology and machinery, provide standard artwork specifications, and invest in state-of-the-art equipment. Enhancing training programs through TVET, building capacity in human resources, and enforcing strict standards are crucial. Continuous skills training and investment in innovative packaging materials will ensure competitiveness with imported products.
- Focus on sustainable and environmentally friendly materials
- Standards on materials should be developed for the industry
- GSA should come up with standards which FDA may accept as standard as above
- Develop policy for quality pharmaceutical packaging
- Assessment of quality needs of industry
- Quality control
- Set up waste reduction target for packaging materials
- Tax holdings be giving to such companies
- Subsiding modern machinery for producing quality packaging
- Restriction of importation of packaging materials to boost local manufacturing
- Continuous evaluation and implementation
- Introduce standards that have to be met by packaging materials manufacturing
- GSA must set a standard for packaging
- Foreign quality should not be compared to local but rather at level to the capacity
- Collaborate with member association and add new raw materials to the list
- The state should assist us to get quality machines at affordable prices to help us to compete with our foreign competitors
- Approved standard materials for manufacturing packages

- A clear policy on standard should be set for all pharma produces as done internationally
- Come up with policy that must be a benchmark for all parties
- Stakeholder engagements and training/ specialization regular assessment and feedback
- We need to have to have expect to train the worker's

8. **Lead-it Africa: Enhancing local packaging quality requires investing in advanced technology, comprehensive training, and strict standards. Incentives and technical support are also essential to align with international benchmarks.**

- ***Response:*** Enhancing local packaging quality requires investing in advanced technology, comprehensive training, and strict standards. Incentives and technical support are also essential to align with international benchmarks.
- Local manufacturers should use similar technology / machines same as foreign
- Standard artwork specification should be provided to local manufacturers
- Start of the arts machines needed at a subsidized cost
- The TVET system should produce graduates with the type of machines we are using in mind
- Building capacity in both human resource and equipment
- There should be training for producers of the packaging materials on designing and machinery
- Harmonize standards
- Strict standards by regulators and authorities
- Incentives to support the regulators
- Technical and repairs support
- Local packaging company must invest in good finishing machinery, that make packaging attractive meeting international standards
- They must keep brand standards
- There should be new standards set by FDA and GSA for which packaging can not go below
- Better machinery and technology improvements
- Skills training
- Invest in recent that is developing new skills, design, innovative packaging materials

9. **Lead-it Africa: How can we address the concerns around the inadequate numbers and quality of skilled PERSONNEL for PHARMA vs. HERBAL vs PACKAGING manufacturing?**

- ***Response:*** To address the shortage and quality of skilled personnel in the pharmaceutical, herbal, and packaging manufacturing sectors, it is crucial to invest in modern machinery, enhance training programs through TVET and universities, and establish accredited training institutions. Continuous capacity building, practical on-the-job training, and collaboration with regulatory bodies and industry stakeholders will ensure a well-trained workforce capable of meeting industry demands.

- ***Technical machine operations***

- Sophisticated machine should be used for printing e.g. Manroland
- Train / incubate more people in design and printing
- TVET should help produce more technical people, but I wish government send some of the graduates to the various companies to learn more on the job and exposed to the machines
- Improve the quality of training
- Intensive training of technical operators to fully understand how the machines work and fix any issues it encounters
- Institutions to train skilled labour
- Training from technical schools or universities based on practical knowledge
- Improve and update training schools
- More accredited machine operators training schools
- Capacity building

- ***Quality Control and Assurance***

- Modern state of the art machinery for producing the packaging

materials should be procured
- Qualified and experienced graphic designers should be engaged
- More avenues should be created to train more quality personnels locally and they should be practical oriented
- Expert personnel to train local manufacturers
- Technical schools for training on knowledge and skills of machinery operations should be set up
- Audit and assessment
- Strict policy guidelines must be introduced
- Support training institutions to provide training and retraining
- By giving special incentives to local companies conduct more training sessions for all interested candidates applying for jobs in the industries
- More scholarships programs from government also can help
- Government should give incentives for students to study related courses
- Vocational training institutions
- Regular training and updates to be organized by regulatory bodies is FDA, GSA etc.
- The government and the FDA should help make herbal medicine attractive to encourage personnel in it quality training
- Herbal HDP industry need to have more facilities
- Standards materials for printing

- ***Production Management***

- Educational institutions should train very practical oriented production managers to feed the industries
- Continuous workshop for production managers
- Employ quality production managers and they must be innovative and firm
- Training operators is key. We also need to employ educated employers. Arrange exchange programs to give experience
- Industry should take interest in on-the-job skilled training.
- Collaboration with the skilled training coaches
- Organizing of the production management workshop, this makes we stay current on industry trends
- Deliberate efforts by authorities and private interest groups towards the industry
- The state should establish herbal manufacturing training institutions
- GMPs to be observed and facilities / factories should be accredited as such
- Regulatory standards should be laid down with inputs from those industries and these must be adhered to by practitioners
- Training on GMP quality, packaging and branding
- Workshops on production management

10. Lead-it Africa: How can we practically address the gaps in technology in the local packaging manufacturing industry?

- ***Response:*** To address technology gaps in local packaging manufacturing, the government can subsidize modern machinery, offer tax exemptions, and provide financial support. Continuous training and investment in R&D by universities, along with partnerships for technology transfer, are essential. Establishing research institutions and centres for quality testing and staff training will further bridge the gap.
- Government can subside or pre finance modern machinery to help bridge the technological gap
- Exemptions for industrial machinery doing well to improve upon technology
- Government can help in setting up some packaging manufacturing companies locally
- Tax exemption on importation of machinery
- Need for financial support and investment for companies who want to go into technological advancement on expansion
- Government incentives in the importation

of new technology are required.
- Constant training on continuous improvement will close the technology gap
- Provision of the necessary technology by government
- Training on use of newer machinery and more modern technology
- Sponsoring skill training abroad and subsiding technology providing infrastructure
- training on current technology trends for packaging manufacturers
- the technical universities should invest in R&D TO MEET DEMAND of the local industry
- the local universities should step up in training more practical technological students to fill the gaps
- Research and development institutions to be set up in Ghana to train interested persons
- Policy to deliberately digitalize PM industry
- Build collaborative partnerships with advanced countries for tech transfer
- Centre to help do all or major required quality test
- Centre to help train and retain staff in PM industry

11. Lead-it Africa: In which areas would you like to see more collaboration and partnerships in local packaging material manufacturing?

- ***Response:*** To enhance local packaging material manufacturing, collaboration between policymakers, industry, and training institutions is essential. Universities should help develop local raw materials, while groups like PMAG can consolidate demand. Investing in modern technology and continuous training is crucial. Partnerships among regulatory bodies, educational institutions, and manufacturers will improve standards and share expertise. Financial and technological support will boost local production quality.
- Policy makers
- Industry
- Training institutions should collaborate effectively
- The universities and technical universities should collaborate with the packaging with the packaging industries to develop local raw material instead of importing
- Consolidate demand by engaging and collaborating with groups eg. PMAG to know the demand
- Vertical integration or manufacturers having packaging subsiding
- The technical know-how brain drain must be considered
- Constant training for our operators and engineers
- Manufacturers products/ packaging
- More collaboration between regulatory bodies, educational institutions and GRA
- Pharma manufacturers should collaborate with each other for improvement of industry standards
- Need for collaborations financially and technological to help local manufacturers in pharma raw materials and packaging materials
- The manufacturers must invest in modern technology that enhances the print finishing. FDA can have a say in the attractiveness of the package
- Innovative and upcoming technology
- Regulators and manufacturers
- Partnership between packaging companies can help share technical competencies and make training simpler
- Partnerships between manufacturing packaging company and government
- Liaise with industry association for concerns and areas of improvement
- Play active role in inventory stakeholder engagement.

12. Lead-it Africa: How can we set up effective collaboration and partnerships to improve local packaging manufacturing?

- ***Response:*** Effective collaboration and partnerships in local packaging manufacturing can be achieved by consolidating industry demand, identifying

potential collaborators, and informing them of government interventions. Policymakers should consolidate packaging information, while government initiatives like "One District, One Factory" can support local production. Collaboration between the FDA and manufacturers, along with stakeholder and investor engagement, is essential for high-quality, affordable, and accessible packaging materials.

- Bulk ordering or consolidate our demand as industry
- Identifying potential collaborators and bringing them to the knowledge of government interventions to strengthen the agenda
- The policy makers should consolidate information on all packaging issues for all stakeholders involve
- The government should help through the one district one factory initiative to produce the packaging (raw) materials locally. The quality to international standards, affordable and assessable
- FDA and manufacturing must collaborate to get good packaging production. They must not frustrate this process making manufacturers cut corners
- Regulatory authorities should look for effective partners for the local market
- Engagement of manufacturers and government to grow the industry
- Engaging stakeholders' groups to shape up the interest in purchasing locally
- Pull resources together to set up local manufacturing for most used by PM
- Need for partnerships between investors and companies interested in producing packaging raw materials locally

13. Lead-it Africa: What regulatory and policy inventions can help to further reduce the prices of locally manufactured packaging materials

- ***Response:*** To reduce prices of locally manufactured packaging materials, regulatory and policy interventions should include government grants and subsidies, control of exchange rate fluctuations, and reduction of energy costs. Implementing tax incentives and waivers on imported raw materials and machinery, along with VAT exemptions, can lower production costs. Ensuring affordable local raw materials and progressively banning imports will enhance competitiveness.

- Identify industry specific and design affordable prices
- Government support through grants for local industry
- They should vat herbal packaging as well
- Control exchange rate to help make cost of production low
- Work on exchange rate fluctuations
- Progressively ban imports
- Government support
- Government subsides raw materials need and also reduction of taxes and levies
- Reduce energy cost
- Reduction of input cost like energy tariffs
- Tax incentives on imported raw materials
- Availability of raw materials in the local market at affordable prices
- Tax waivers on all machineries to establish packaging materials
- VAT exemptions
- Government tax exemptions for specific industry doing well locally on packaging manufacturing
- Reduction in levies and taxies of imported packaging materials to enable local manufacturers compete with imported prices.

14. Lead-it Africa: How can we reduce Lead TIME TO DELIVERY to make local PM more competitive vs. Imported

- ***Response:*** To reduce lead time and enhance competitiveness, local pharmaceutical packaging manufacturers should increase production capacity, foster collaboration, support technological growth, ensure timely payments, and avoid using them as stop-gap measures.

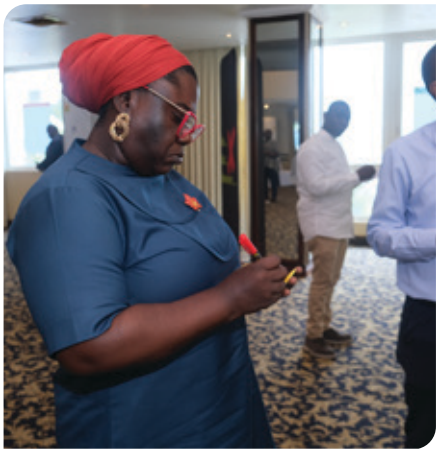
- Increased capacity (production machinery)
- Collaboration and effective communication on needs, times schedule for order
- More production time
- Modern machinery
- Experienced staff with knowledge of pharma industry
- •Support technological growth in packaging manufacturers
- Sign supply agreement and supply according to terms
- Specific allocation of orders to different packaging manufacturers
- Integrate systems with monthly and yearly consumption and forecast
- Pay on order so manufacturers
- Financial grants support for state-of-the-art machinery
- Stop using local Packaging Manufacturers as stop gap measures

13. Lead-it Africa: How can we increase the local PM's Capacity to deliver significantly large volume orders?

- ***Response:*** To increase local PM's capacity for large volume orders, stakeholders suggest partnering with global producers, providing financial assistance, and regulating the dollar to cedi ratio. They recommend capacity-building incentives, tax incentives for long-term contracts, and expanding PM companies. Engaging local pharma manufacturers and procuring high-capacity equipment with government support are crucial. Consolidating industry demand, improving access to cheap finance, and constant monitoring are essential. Reducing taxes on raw materials and adding local manufacturers to the free zone board are also recommended.

- Local players to partner with global producers to enhance their capacities
- Need for financial assistance and pacing of inputs when desired capacity is met to the packaging materials
- Regulation of the dollar to cedi ratio
- Give incentives for capacity building and tax incentives for long / medium term contracts
- Expansion of existing PM company
- Local pharma manufacturers be engaged for animal volumes. High volume capacity equipment to be procured to support increased capacity
- Inadequate machinery should be addressed through government support
- Firms within the industry should consolidate their demand
- Increase / improve access to cheap finance for expansion
- There should be a constant monitoring on Local PMs when given large quantities orders to prevent delay or low quality due to procrastination among local workers
- Taxes and levies to be reduced on raw materials
- We need to have many facilities manufacturing packaging
- Government should give or add local manufacturers on the free zone board
- Subsidizing and not being overly controlling audibility of raw materials

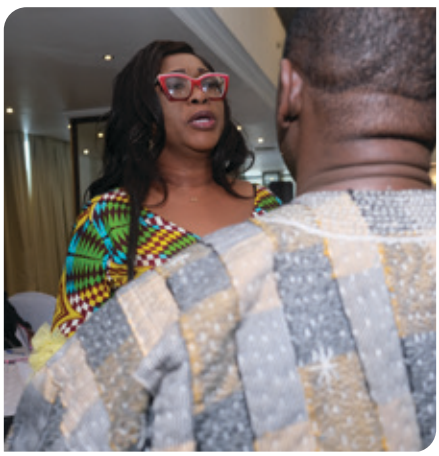


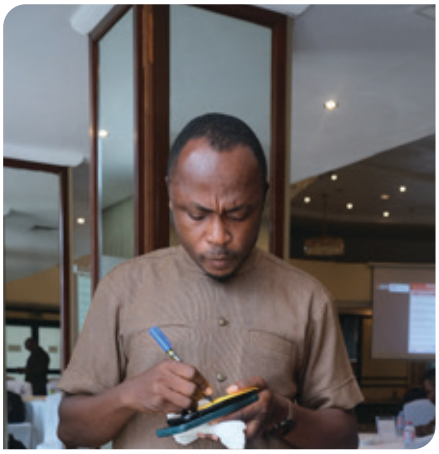


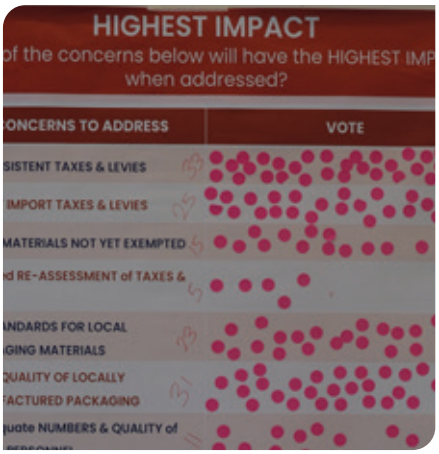

INPUT MATERIALS NOT YET EXEMPTED

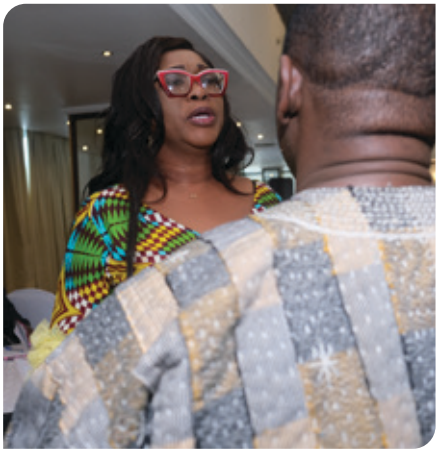


5000

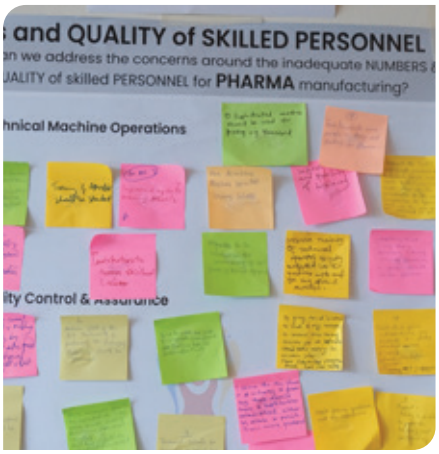


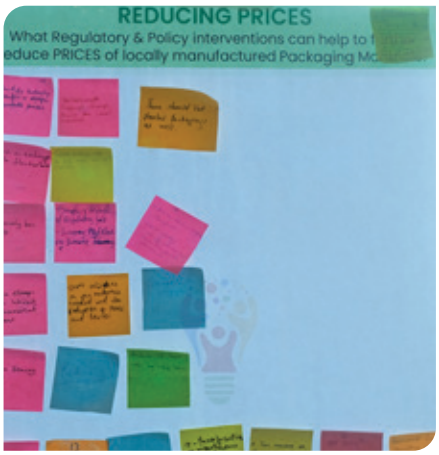



HIGHEST IMPACT
of the concerns below will have the HIGHEST IMP
when addressed?
ONCERNS TO ADDRESS
VOTE
SISTENT TAXES & LEVIES
IMPORT TAXES & LEVIES
MATERIALS NOT YET EXEMPTED
d RE-ASSESSMENT of TAXES &
NDARDS FOR LOCAL
GING MATERIALS
QUALITY OF LOCALLY
FACTURED PACKAGING
uate NUMBERS & QUALITY of




POLICIES TO IMPROVE QUALITY
What Regulatory & Policy Interventions can help to
improve the QUALITY of Packaging Materials on the


and QUALITY of SKILLED PERSONNEL
we address the concerns around the inadequate NUMBERS
UALITY of skilled PERSONNEL for PHARMA manufacturing?
hnical Machine Operations
ity Control &


REDUCING PRICES
What Regulatory & Policy interventions can help to
educe PRICES of locally manufactured Packaging

Appendix - 5

List of Packaging Manufacturers

A. Paper and Paperboard Converters:

1. Fine Print Ltd
2. Wala Africa
3. Flixo hub
4. Royal Crown
5. Geffour Global
6. fon packaging
7. Global Insight
8. G-pak
9. Monia Ghana Ltd
10. Jay kay
11. Ideas Print House
12. Mork Impression
13. Wyse Print
14. Epac
15. Agbeve
16. Kantanka
17. Blowplast
18. AAA paper
19. sonapack Ghana LTD
20. Mini Plastic Ltd
21. Alrayan Industries Company
22. Lesdy company
23. Print Man
24. Huotong Packaging Ghana
25. Sakoa

B. Plastic Packaging Manufacturers:

1. Givers
2. Kantanka:
3. Buabeng
4. Berry global
5. Qualiplast Ltd
6. Polytex Industries Limited
7. THAG
8. CPMR
9. Phylotec
10. Choco industry
11. Suzzy herbals
12. Health alert
13. Karma BBTN
14. Solak herbals
15. Greenfield
16. Agbeve herbal
17. Coliba Ghana

The list for packaging manufacturers above may not be exhaustive

Appendix - 6

List of Pharmaceutical Manufacturers in Ghana

1. Amponsah Efah Pharma Ltd
2. Aspee Pharma Ltd
3. Atlantic Life Sciences
4. Dannex Ayrton Starwin PLC
5. Ernest Chemist Limited
6. Entrance Pharmaceutical & Research Ltd
7. Equatorial Healthcare Ltd
8. Eskay Therapeutics Ltd
9. GR Industries Ltd
10. Golden Tower Limited
11. Intravenous Infusions Ltd
12. Kama Industries Ltd
13. Kinapharma Ltd
14. Kosa Laboratories
15. Kofikrom Pharma Ltd
16. Letap Pharmaceuticals Limited
17. M & G Pharmaceuticals Ltd
18. Midland Pharmacy Ltd
19. Mikaaddo Laboratories
20. O.A & J Pharma Ltd
21. PharmaNova Limited
22. Pharmatrust Ltd
23. Phersons Pharmacy Limited
24. Phyto-Riker (GIHOC) Pharma
25. PokuPharna
26. Pro-Life Infusions Ltd
27. Propharm Chemist Ltd
28. Quintex Pharma Ltd
29. Renie Chemist Limited
30. Salom Pharmacy Ltd
31. SanBao (GH) Pharmaceuticals Limited
32. Tradewinds
33. Unicom Chemist
34. Unichem Industries Ltd

Appendix - 7

List of Herbal Medicine Manufacturers Registered with the FDA

1. Adwenpa Company Ltd
2. Asetena Pa Herbal Centre
3. Masada Herbal Centre
4. Osompa Herbal Centre
5. Godka Miraculous Herbal
6. Johnokos Pharmaceuticals Ltd
7. Natural Scientific Pharm LTD
8. Okyeman Herbal Centre
9. Sunburst healthcare Ltd
10. Gyaesu Herbal Centre
11. Dr. Nyarko herbal clinic
12. Rexcom Herbal medicated soap industry
13. Ancient Herbal Centre
14. Tinatette Herbal
15. Dua Ma Ayeresa Clinic Research Centre
16. God's Gift Herbal centre
17. Terscas Noni Farm Enterprise
18. Natural Concept
19. Isaac 2 Herbs centre
20. Power Nature Herbs Centre
21. Greenlife Herbery Ltd
22. Wagyeme Herbal Centre
23. Miscusfranco Enterprise
24. 21st Century Clinic
25. Asamani Herbal Centre
26. Darkjos Ventures
27. Nana Nsiah Herbal Centre
28. Nadom Herbal Centre
29. Alafia Herbal Centre
30. Afri Daghara Enterprise
31. Quantah Herbal
32. Edigaf Services
33. Daysah Ventures
34. De-Paul Herbal & healthcare centre
35. Phytotec Ltd
36. Agricomah Enterprise
37. Hopeful Herbal Centre
38. Safety life Herbal
39. Ya-Rahman Herbal centre
40. AGS Herbal Enterprise
41. Eric Nana Amissah Enterprise
42. Shine Herbal centre
43. Padan Herbal Centre
44. Yamok Industry & company
45. FZR company Ltd
46. Charley Industries
47. Eagle Hebal centre
48. A-star Herbal
49. Odomankoma Herbal Products
50. Victory Herbal Centre
51. Jehovah God Herbal Centre
52. Natural Remedies
53. Dayamsco Enterprise
54. Johnoks Pharmaparck Ltd
55. Franpauls Herbal centre
56. Excel Phyto Herbal Centre
57. Agadarko New Life Ltd
58. Awutu Noaf Company Ltd
59. Seth Brothers Enterprise
60. Satis Herbal Centre
61. Gilligold Pharmaceutical Ltd
62. Resurgence Ghana Ltd
63. Yaakson Herbal Centre
64. Crown Pharmacy
65. Adzintam Farms
66. Agbeve Herbal centre
67. Ampa Herbal Centre
68. Agyenkwa Power Herbal Centre
69. Tumiwura Herbal Research and clinic
70. Alabaster Herbal products
71. Herbe limited
72. Aponche Memorial Herbal clinic
73. Maa Foah Okay ointment
74. Asajani Herbal Centre

75. Evergreen Healthcare Enterprise
76. Attraction Power
77. Divine Alternative Medicine Research Centre
78. Becostar Gh. Ltd
79. Funny Gunichi Herbal
80. Bekos Herbal Company Ltd
81. Liver Clinic Now (herbal wellness Centre)
82. Capital 02 Ltd
83. Medi-Moses clinic and herbal centre
84. Top Herbal Centre
85. Dependable Herbal Centre
86. Toga Herbal Centre
87. Dorifa Manufacturing Ltd
88. JL Danquah Herbal Centre
89. Dr. Charcoal Back to Eden Sanitarium
90. Mighty Power Herbal centre
91. Dua Ma Aduro Herbal Centre
92. Insaanity Herbal Centre
93. Johnson Noni Product
94. Kietason 4JT Enterprise
95. Milyash Heerbs Ltd
96. Phanos Ventures
97. God's Love natural Herbal
98. Tabitha Herbal Centre
99. Richjoes company Ltd
100. Rojan Herbal Centre
101. Kamal Herbal Home
102. Best Finger Enterprise
103. Herbal Wellness centre
104. Kingdom Herbal centre
105. Power Herbal Centre
106. RNG Medicine Research Lab
107. Rokidolls Solutions
108. Saviour Axomam herbal centre
109. Motson Marketing Ltd
110. Tweba Herbal centre
111. Dua ma Nkwa Herbal
112. Baffour & sons Enterprise
113. Nature concept
114. Enyinda herbal centre
115. Habaso Dang Herbal
116. Johnoks Pharmaceuticals Ltd
117. Rocare herbal centre
118. Quanteh Herbal
119. Pruvens Enterprise
120. Odoma-Nkoma Herbal
121. Evergreen Herbal Enterprise
122. Tetewobika Herbal Centre
123. A-Z Herbal centre
124. Frankpauls Herbal centre
125. Nana Dordoe Herbal centre
126. Mahay Herbal Company
127. Obiri Herbal company
128. Hossana Herbal
129. Togbe Kwamu Herbal
130. Sallam Yaba Indi Ventures
131. Salvation Herbal Centre
132. One life healthcare education and research centre
133. Regeneration herbal sanitarium centre
134. Oboako Herbal centre
135. Prince Emmanuel Sanitarium
136. Akwaaba Herbal
137. Nature Way Herb
138. Givers Herbal Centre

SCOPING GHANA PACKAGING SECTOR AND OPPORTUNITIES TO IMPROVE SUPPLY TO THE PHARMACEUTICAL MANUFACTURING SECTOR

SEPTEMBER, 2024.

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