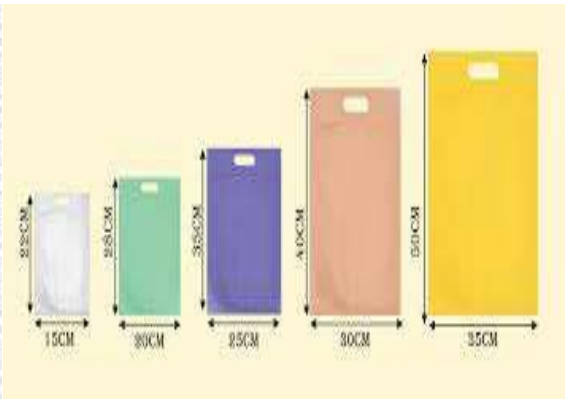
The General Authority for Investment & Free Zones
Economic Performance Sector

A Preliminary Feasibility Study On the Production of Plastic Bags



Prepared by
Economic Performance Sector
Central Department of Feasibility Studies and Investment Cost Estimation
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I. Project Basic Information

Project Activity	Production of Plastic Bags
Project Location	Alexandria Governorate The project can be set up in any industrial zone, where the industrial sector is available
Land & Building Surface Area	From 144 m^2 to 1150 m^2
Permitted Act of Disposition	Ownership
Land Price Including the Buildings	EGP 11,685/m^2
Project Economic Life Expectancy	5 years
Expected Labor	8 laborers and administrative staff
Expected Investment Cost	EGP 11,452,640
Return on Investment (ROI)	30%
Payback Period	36 months
Feasibility Study Date	July 2022

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II. Project Overview

- During the past years, the plastics industry in Egypt has witnessed significant growth, making it one of the most promising industries in which Egypt enjoys a competitive advantage that qualifies it to become in a leading position at the level of the global plastics market.
- Alexandria is considered one of the most important governorates in which this industry is settled due to its huge and several industrial establishments operating in this industry, and because it is the only one, where plants for the production of plastic raw materials are located in Egypt.
- Egypt is one of the largest African countries producing plastics, with its production representing about 20% of the continent's production according to the latest report of the Chemical & Fertilizers Export Council.
- The packaging industry uses more than 40% of plastic raw materials.
- The plastic bags industry is one of the projects producing diversified products, as one machine can produce several different shapes, types and densities of bags, contributing to diversifying the products according to the demands of the local or international market.
- The project is considered one of the important and profitable projects due to the increased demand for plastic bags to be used for various household purposes, as these bags are used for preserving liquid materials, food and beverages.
- The cost of setting up a plastic products project is relatively low compared to its expected return, which is a considered a stimulus to establish such project.

III. Project Legal Feasibility Study

- In accordance with the provisions of Investment Law, plastics industry is one of the activities subject to aforementioned Law. Moreover, the State gives attention and incentives to such activity.
- Companies incorporated for such purpose may be incorporated in accordance to the provisions of Investment Law, Companies Law, and Commerce Law as per the desire of the owners.
- The project can be incorporated as a sole proprietorship, partnerships, a limited liability, or a joint stock company.
- There are some legal limitations that must be taken into consideration to obtain the activity license from the concerned bodies, which are as follows:

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  - The Governorate having jurisdiction over the land and its affiliated local units, or the City Hall
  - Civil defense and fire requirements
  - Permits and licenses of the Ministry of Environment
- In case of export, the project must obtain an import and export card indicating the nature and description of the products, or export through an intermediary company that undertakes the export and customs release procedures on behalf of the project.

IV. Project Marketing Feasibility Study

The market feasibility study is a part of the feasibility study, and usually detailed feasibility study starts with determining the marketing validity of the project subject to study with the aim of specifying the probabilities of market response to the idea of the new product or service that the project seeks to provide. In the event that the outputs are positive, there is a chance to study the possibility of applying the idea technically. In this situation, outputs of the market study represent the basis of the technical and engineering feasibility study of the project and the subsequent financial, economic and social studies.

1. General Market Indicators (SWOT Analysis)

Opportunities:

- Existence of incentives and laws encouraging investment.
- Availability of financing opportunities for projects through loans.
- Existence of vital and consumer market for the project's products.
- Existence of multiple marketing opportunities through participating in the local and international exhibitions.

Threats:

- Scarcity of raw materials used for producing plastic locally, as Egypt imports most of its needs for plastic raw materials.
- Changes that occur in the prices of imported raw materials due to their correlation with the price of dollar and fuel.
- Existence of multiple plants operating in the same field, which increases the possibility of competition.

Strengths

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- Availability of expertise required for project management and operation.
- Availability of the necessary land to set up the project.
- Availability of advanced technological machines that facilitate the production process and increase the produced quantity.

Weaknesses

- Factory exposure to fire hazards.
- Danger of having the final product easily damaged.

SWOT Analysis Outcomes:

The good use of available opportunities can limit the threats encountered by the project. Moreover, weaknesses can be reduced by the optimal use of strengths.

2. **Demand Volume:**
   - According to the data of the Industrial Modernization Centre (IMC), the imports volume reached $3.2 billion in 2020.
   - Egypt imports nearly 70% of its needs for plastic manufacturing materials.
   - Egypt produces 30% of the needs of the plants operating in the field of plastic industries.

3. **Supply Volume:**
   - Egypt exports in the chemical sector estimated at $1.65 billion in 2020.

4. **Market Gap:**
   - Based on the aforementioned, the marketing gap is estimated at $ 1.55 billion.

5. **Targeted Markets:**
   - Local markets
   - Export

6. **Marketing Study Conclusion**

Based on the above-mentioned study, it is concluded that there is a demand for the product in the local market, and thus the establishment of the project is feasible from the marketing point of view.

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V. Project Environmental Feasibility Study

- The environmental feasibility study is defined as the study that explains the degree of protection and maintenance achieved for the environment, by taking into account its absorptive capacity or its maximum capacity to withstand human activities aimed at exploiting environmental resources without the occurrence of environmental degradation or depletion on the short and long term, whether directly or indirectly.
- Environmental feasibility studies are one the pillars of environment protection and maintenance. Since sustainable development is the one considering the environmental dimension in addition to the economic and social dimensions, then paying attention to environmental feasibility studies for different development projects is an absolute necessity to achieve sustainable development, along with economic feasibility studies that ensure that the project achieves the greatest amount of material benefits without taking into account the conditions of the environment or its potential and the possible negative effects for this project on it.
- The Egyptian State approved the Environment Protection Law no. 4 of 1994 and its executive regulations no. 338 of 1995 including mandatory legislative articles to owners of projects of all types to eliminate the environment pollution and protect it.
- In accordance with the project classification prepared by the Ministry of Environment, which classified projects according to their effect on the environment to (A, B, C, etc.), the project is classified as B.
- The final product of such project is a recyclable one, which helps in the protection of the environment and conservation of resources.
- In terms of health, plastic bags are classified into multiple categories according to the material they are made of and their effect on the bags' content, as follows:

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- Number (1) is for Polyethylene Terephthalate "PET" which is used in the manufacture of water, soda and juice bottles. Such containers absorb some of the materials contained in them, and they are susceptible to bacterial growth, thus it must be used once and never refilled.
- Number (2) is for high-density polyethylene "HDPE" which is used in the manufacture of milk bottles available in the market, detergent and shampoo bottles. Such containers do not transfer any chemical materials to food in normal temperature.
- Number (3) is for Polyvinyl chloride "PVC" which is used in the manufacture of oil bottles. Moreover, PVC is used in the manufacture of plastic pipes. However, the usage of PVC must be minimized because of having materials that affect on the hormones, and if exposed to high temperature, carcinogens are released.
- Number (4) is for low-density polyethylene "LDPE" which is used in the manufacture of plastic bags and cling film that are used in wrapping bakeries. Such materials are safe and do not transfer any chemical materials to food in normal temperature.
- Number (5) is for polypropylene "PP" which is used in the manufacture of yogurt cups. Such materials are safe and do not transfer any chemical materials to food in normal temperature.
- Number (6) is for polystyrene (PS) which is used in the manufacture of disposable cups that are used in coffee and so on. Such material may transfer carcinogens from plastic to food and beverages.

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- Number (7) is the most dangerous of all as it refers to multiple materials including "polycarbonate" that contains bisphenol-A that leads to hormones imbalance and cause many problems. Moreover, it is related to breast cancer and uterine cancer for women and testosterone deficiency for men, as well as terrible dangers to children especially because it was used in the manufacture of some kids' toys and tools.

VI. Project Social Feasibility Study

- Investment projects are one of the main pillars of the State's economic development process and a mean to achieve the economic, social and development goals to be realized, which eventually results in achieving high levels of well-being.
- The project helps in directly employing different types of labor by working in the project itself, and indirectly through the supply and distribution chains that the project deals with starting from the obtainment of raw materials needed for production to sale outlets and end consumers.
- The project helps in increasing the State's tax revenue, which is ultimately beneficial to the society.
- In case the project exports its products, this contributes in increasing the State's foreign exchange earnings, thus bridging the balance of payments deficit.
- The project decreases the unemployment rates especially for uneducated labors whom the project needs and provides them with an income that ensure a decent life for them and make them productive for the society.

In light of the aforementioned, the project is socially feasible.

VII. Project Technical Feasibility Study

1. Location:

According to the investment opportunities available on the Investment Map, the project can be set up in Alexandria and in any industrial zone at the other governorates where the necessary requirements for setting up the project are available.

2. Land and Building:

A concrete building on the project's entire surface area of 144 m^2 that can be increased to 1150 m^2.

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3. **Required Labor:**

Item	Number
Factory Director	1
Production supervisor	1
Workers	4
Janitor	1
Driver	1
Total	8

4. **Raw Materials and Supplies for Production and Packaging:**
   - Polyethylene Powder
   - Dyes

5. **Required Machinery and Equipment for Production Process:**
   - Film blowing machine to convert the polyethylene powder to a film of cuttable double plastic.
   - Electric cutting and welding machine for plastic bags.
   - Electric punching machine for creating plastic bag handles.
   - Bags welding machine.

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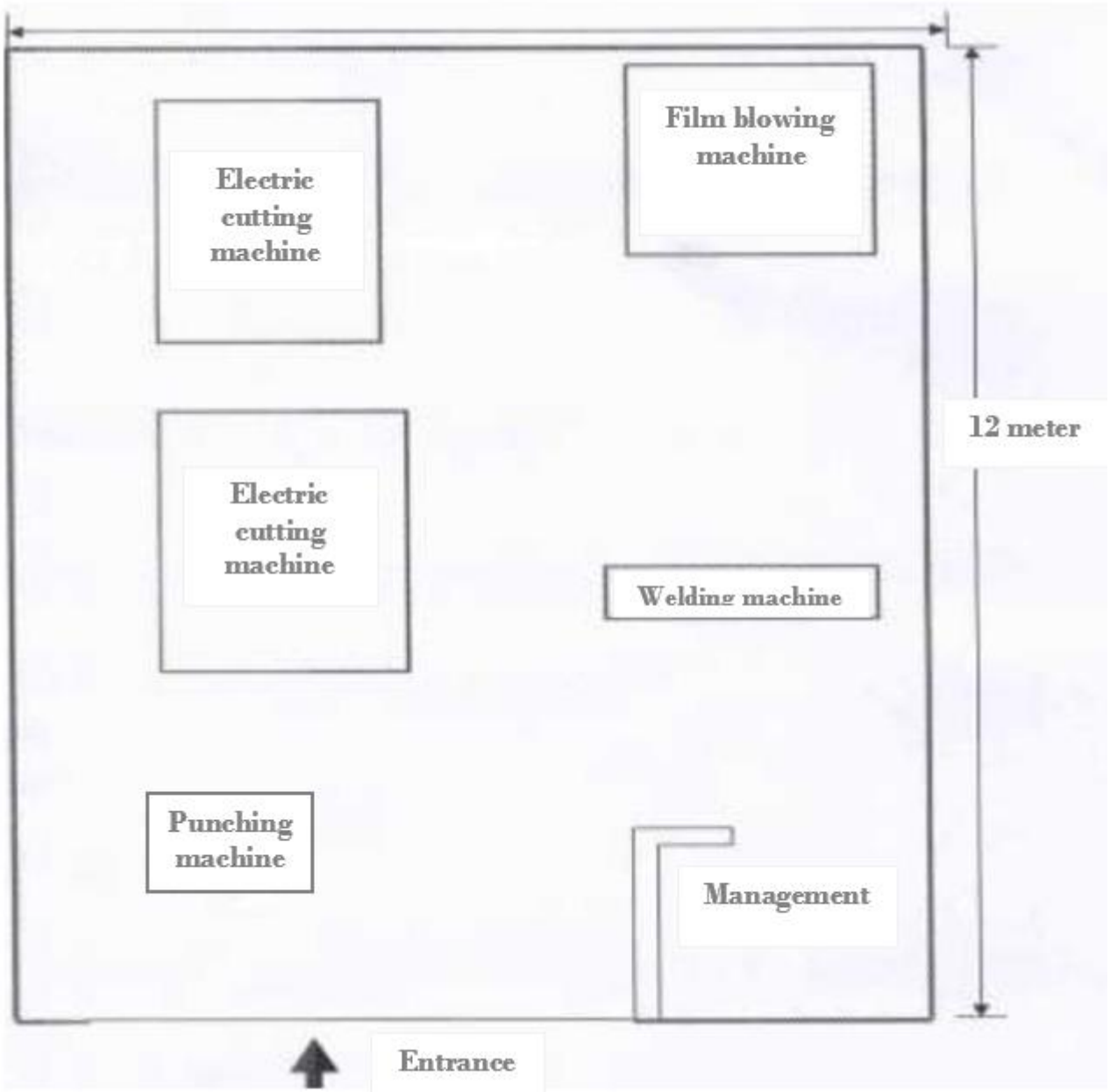

6. **Production Phases:**
   - Raw plastic pellets are put into the hopper to feed the heating area.
   - Dyes are added.
   - Plastic film extrusion
   - The material is pushed through helical gear into the machine, and superheated using heaters until it turns into a consistent molten liquid, then it is mixed and forced into dies.
   - The compressed air is pumped into the middle of the molten liquid path using air compressor, and the molten plastic turns into a balloon-like plastic film that passes through a tall vertical corridor, noting that the more there is compressed air, the less thickness and more size the balloon will have.

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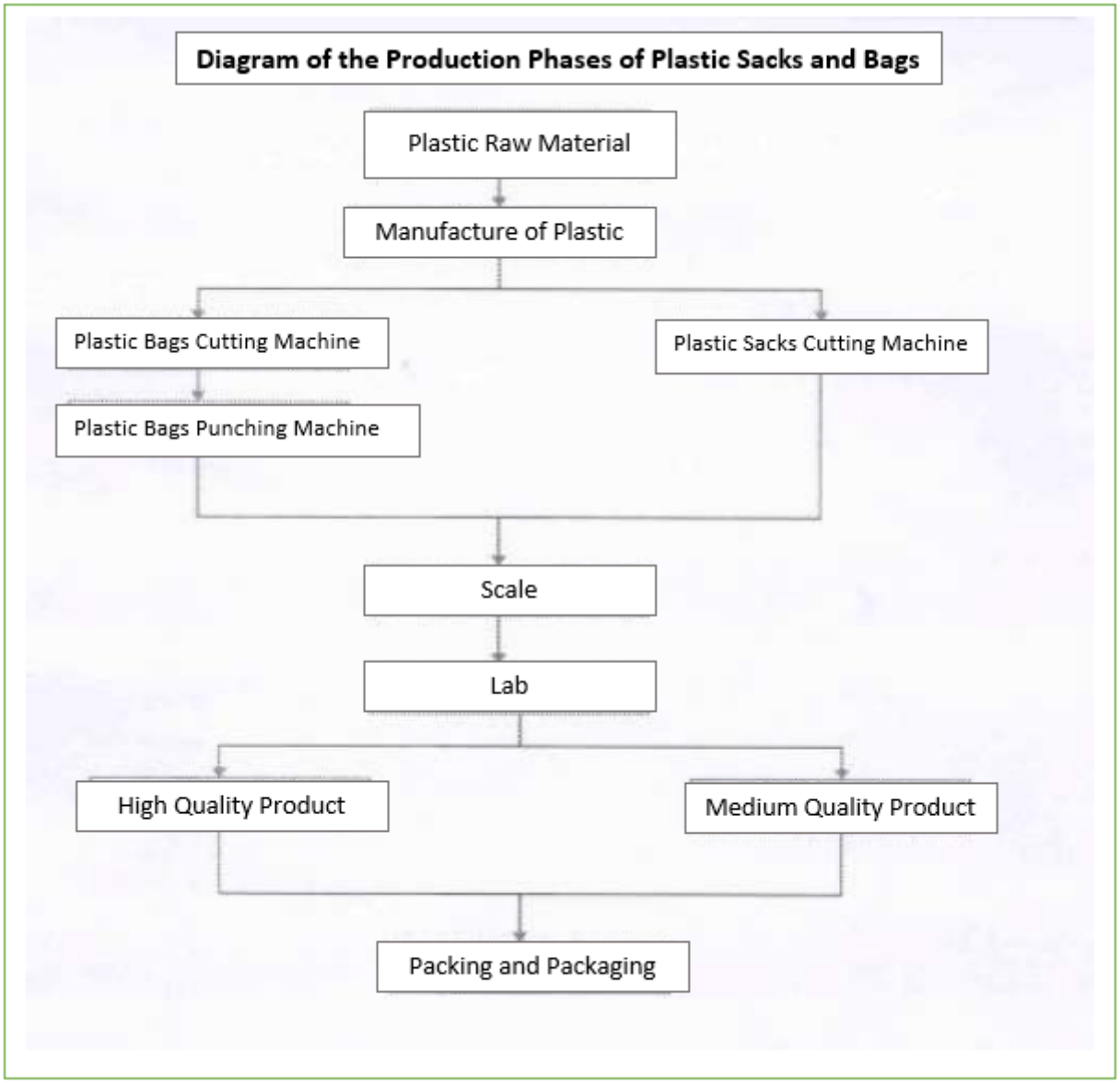
- The balloon is pulled out to rollers to be contorted into a thin film sheet.
- The sheet is moved to the cutting machine to be cut into the desired width, and the scissor is equipped with horizontal heaters to weld the bag, and thus separate it from the raw sheet.
- The bag is punctured using the punching machine to create the handles.
- Plastic bags are systematically assembled for weight and packing according to the order.



7. Final Products & Production Capacity

- Final Products
  - Transparent plastic bags
  - Bags for commercial uses

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- Garbage plastic bags

– Other products can be added later:
  - Transparent plastic rolls for wrapping industrial products
  - Designs for industrial products containers
  - Printed containers
  - Plastic roasting bags

○ Production Capacity
  - The production capacity is about 360 tons annually.

8. Required Quantity of Raw Materials Annually

Item	Required Quantity (Tonnes)
Polyethylene Powder (Low Density)	370
Dyes	5

VIII. Project Financial Feasibility Study

Financial feasibility study is a tool that helps the investor in taking the investment decision. To simplify this decision, all investment and production costs must be calculated clearly and accurately taking into account that the project profitability depends on the volume and components of the investment and production costs.

1. Foundations and Hypothesis of the Financial Feasibility Study:

- Data used in the study and the expected revenue estimates of the volume and value of sales have been estimated according to results of the market study.
- Investment spending values and other elements of costs and expenses have been estimated according to results of the technical study.
- The annual depreciation installment for buildings and machinery is estimated according to results of the technical study, assuming that the sales value at the end of the period is according to its book value.
- The estimated value of the fixed assets mentioned in this study is related to a specific period according to the prevailing circumstances at the time of preparing this study; and that this value may change with the change of circumstances by the limitation period of the report or by the change of the economic climate in general.

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- Incorporation and pre-commencement expenditure have been assumed that they are fully depreciated with the first year of revenue as per the Egyptian Accounting Standards.
- The estimated income statements have been prepared on the assumption that there is no fundamental change in the revenue values and expected annual costs during the study period.
- The annual cash flows were estimated using the indirect estimation method by making the necessary adjustments to the results of the estimated income statements for the years under study.
- The study assumed that all purchases include VAT.

2. Annual Sales:

- The expected sales for the first year after estimating the production capacity and selling other rubber waste are estimated as follows:

#	Product	Sales/ Tonne	Average Price	Total
1	Plastic bags with various capacities	360	27000	9,720,000
	Total	**360**		**9,720,000**

3. Project Investment Costs

- Investment costs mean all that is spent on the project from the moment of serious consideration of its establishment until the end of the first operational cycle. Such costs are related to the construction period, whose duration varies from one project to another, as the construction period may reach several years in some projects, and in other projects, the construction period may not be counted.
- The investment costs can be clarified as follows, according to the data specified in the project technical study:

- Land Cost including the Building:
  - According to the data available on the Investment Map, the land price in the specified zone is EGP 11,685/m^2.
  - The total cost of land is EGP 11.685 * 144 m^2 = EGP 1,682,640.
  - The building value is entirely depreciated over 20 years.

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- **Lorries:**
  - The cost of buying one lorry was estimated at EGP 500,000 (depreciation period is 5 years).

- **Furniture, Fixtures and Furnishings**
  - The cost was estimated at EGP 20,000 (depreciation period is 5 years).

- **Legal and Incorporation Fees**
  - Expenses were estimated at EGP 150,000 to be spent during the first year of business operation.

- **Machinery and Equipment**
  - The cost of the production line was estimated at …….. (depreciation period is 10 years).

- **Production Supplies and Raw Materials Cost:**

No.	Item	Weight by Tonnes	Average Cost	Total
1	Polyethylene Powder (Low Density)	360	15,000	5,400,000
2	Industrial Shrink	2	35,000	70,000
	Total			5,470,000

- **Payroll Costs:**
  - The payroll cost is estimated at EGP 1,188,000, as follows:

Item	No.	Monthly Salary	Annual Salary
Factory Director	1	10,000	120,000
Production supervisor	1	5,000	60,000
Workers	4	4,000	192,000
Janitor	1	3,000	36,000
Driver	1	6,000	72,000
Total	8	28,000	480,000

- **Marketing Expenses Cost:**

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- According to the marketing study, the marketing campaign cost is estimated at EGP 100,000.

- **Other Running Cost:**
  - The cost of water, gas and electricity consumptions are estimated at EGP 200,000.

- **Annual depreciation Cost:**
  - The depreciation is calculated as follows:

Item	Asset Value	Production Years	Depreciation Percentage (%)	Annual Depreciation
Property	1,682,640	20	5%	84,132
Machinery	3,000,000	10	10%	300,000
Transport Vehicles	500,000	5	20%	100,000
Fixtures, Furniture, and Stationary	20,000	5	20%	4000
Incorporation Expenses	150,000	1	100%	150,000
Total	**5,352,640**			**638,132**

Accordingly, the total value of the investment costs are as follows:

Item	Cost
Property	1,682,640
Machinery	3,000,000
Production Supplies	5,470,000
Transport Vehicles	500,000
Fixtures, Furniture, and Stationary	20,000
Incorporation Expenses	150,000
Payroll	480,000
Marketing Expenses	100,000
Other Running Costs	50,000
Total	**11,452,640**

4. Project Financial Statements and Indicators, and Expected Profitability Ratios:

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- The financial statements and indicators, and profitability ratios are among the most important tools used to assess the economic viability of projects. The assessment comes upon calculating the net income of the project and the project net cash inflows, as well as the net present value of money resulting from an increase in the inflation rate using the prevailing interest rate.
- Financial indicators are also used to make a comparison between the available investment options, and used to compare between the average return on investment and the payback period for each project separately.

- **Expected Income Statement for the First Five Years of the Activity:**

  With 10% estimated annual increase in production.

بيان	السنة الاولى	السنة الثانية	السنة الثالثة	السنة الرابعة	السنة الخامسة
ايراد المبيعات	٩,٧٢٠,٠٠٠	١١,١٧٨,٠٠٠	١٢,٨٥٤,٧٠٠	١٤,٧٨٢,٩٠٥	١٧,٠٠٠,٣٤١
تكلفة المبيعات					
مستلزمات الانتاج	٥,٤٧٠,٠٠٠	٦,٢٩٠,٥٠٠	٧,٢٣٤,٠٧٥	٨,٣١٩,١٨٦	٩,٥٦٧,٠٦٤
أجور	٤٨٠,٠٠٠	٥٢٨,٠٠٠	٥٨٠,٨٠٠	٦٣٨,٨٨٠	٧٠٢,٧٦٨
مصروفات تسويقية	١٠٠,٠٠٠	١١٠,٠٠٠	١٢١,٠٠٠	١٣٣,١٠٠	١٤٦,٤١٠
مجمل الربح	٣,٦٧٠,٠٠٠	٤,٢٤٩,٥٠٠	٤,٩١٨,٨٢٥	٥,٦٩١,٧٣٩	٦,٥٨٤,٠٩٩
تكاليف تشغيلية أخرى	٥٠,٠٠٠	٥٥,٠٠٠	٦٠,٥٠٠	٦٦,٥٥٠	٧٣,٢٠٥
الاهلاك	٦٣٨,١٣٢	٤٨٨,١٣٢	٤٨٨,١٣٢	٤٨٨,١٣٢	٤٨٨,١٣٢
صافي الربح قبل الضرائب	٢,٩٨١,٨٦٨	٣,٧٠٦,٣٦٨	٤,٣٧٠,١٩٣	٥,١٣٧,٠٥٧	٦,٠٢٢,٧٦٢
ضريبة ٢٢,٥%	٦٧٠,٩٢٠	٨٣٣,٩٣٣	٩٨٣,٢٩٣	١,١٥٥,٨٣٨	١,٣٥٥,١٢١
صافي الربح بعد الضريبة	٢,٣١٠,٩٤٨	٢,٨٧٢,٤٣٥	٣,٣٨٦,٩٠٠	٣,٩٨١,٢١٩	٤,٦٦٧,٦٤١

Item	البيان
First Year	السنة الأولى
Second Year	السنة الثانية
Third Year	السنة الثالثة
Fourth Year	السنة الرابعة
Fifth Year	السنة الخامسة
Total sales	إيراد المبيعات
Sales cost	تكلفة المبيعات
Production Supplies	مستلزمات الإنتاج
Payroll	أجور
Marketing Expenses	مصروفات تسويقية

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Total Profit	مجمل الربح
Other running costs	تكاليف تشغيلية أخرى
Depreciation	الإهلاك
Net Profit before tax (PBT)	صافي الربح قبل الضرائب
22.5 % tax	ضريبة 22.5%
Net Profit after tax (PAT)	صافي الربح بعد الضريبة

Expected Cash Flows Statement for the First Five Years of the Activity:

بيان	السنة الاولى	السنة الثانية	السنة الثالثة	السنة الرابعة	السنة الخامسة
التدفقات النقدية الداخلة	٩,٧٢٠,٠٠٠	١١,١٧٨,٠٠٠	١٢,٨٥٤,٧٠٠	١٤,٧٨٢,٩٠٥	١٧,٠٠٠,٣٤١
التدفقات النقدية الخارجة					
مستلزمات الانتاج	٥,٤٧٠,٠٠٠	٦,٢٩٠,٥٠٠	٧,٢٣٤,٠٧٥	٨,٣١٩,١٨٦	٩,٥٦٧,٠٦٤
أجور	٤٨٠,٠٠٠	٥٢٨,٠٠٠	٥٨٠,٨٠٠	٦٣٨,٨٨٠	٧٠٢,٧٦٨
تكاليف تشغيلية أخرى	٥٠,٠٠٠	٥٥,٠٠٠	٦٠,٥٠٠	٦٦,٥٥٠	٧٣,٢٠٥
مصروفات تسويقية	١٠٠,٠٠٠	١١٠,٠٠٠	١٢١,٠٠٠	١٣٣,١٠٠	١٤٦,٤١٠
ضريبة ٢٢,٥%	٦٧٠,٩٢٠	٨٣٣,٩٣٣	٩٨٣,٢٩٣	١,١٥٥,٨٣٨	١,٣٥٥,١٢١
اجمالى التدفق الخارج	٦,٧٧٠,٩٢٠	٧,٨١٧,٤٣٣	٨,٩٧٩,٦٦٨	١٠,٣١٣,٥٥٤	١١,٨٤٤,٥٦٨
صافى التدفق النقدى	٢,٩٤٩,٠٨٠	٣,٣٦٠,٥٦٧	٣,٨٧٥,٠٣٢	٤,٤٦٩,٣٥١	٥,١٥٥,٧٧٣

Item	البيان
First Year	السنة الأولى
Second Year	السنة الثانية
Third Year	السنة الثالثة
Fourth Year	السنة الرابعة
Fifth Year	السنة الخامسة
Cash inflows	التدفقات النقدية الداخلة
Cash outflows	التدفقات النقدية الخارجة
Production Supplies	مستلزمات الإنتاج
Payroll	أجور
Other Running Costs	تكاليف تشغيلية أخرى

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Marketing Expenses	مصروفات تسويقية
Tax 22.5%	ضريبة 22.5%
Total cash outflow	إجمالي التدفق الخارج
Net cash flow	صافي التدفق النقدي

- **Net present value (NPV) of cash inflows:**
  This is according to a discount factor of 10%, which is the simple interest rate at the time of preparing the study:

السنة	التدفق النقدي	معامل الخصم ١٠%	صافي القيمة الحالية
السنة الاولى	٢,٩٤٩,٠٨٠	٠,٩٠٩	٢,٦٨٠,٧١٤
السنة الثانية	٣,٣٦٠,٥٦٧	٠,٨٢٦	٢,٧٧٥,٨٢٨
السنة الثالثة	٣,٨٧٥,٠٣٢	٠,٧٥١	٢,٩١٠,١٤٩
السنة الرابعة	٤,٤٦٩,٣٥١	٠,٦٨٣	٣,٠٥٢,٥٦٧
السنة الخامسة	٥,١٥٥,٧٧٣	٠,٦٢١	٣,٢٠١,٧٣٥
الاجمالى	١٩,٨٠٩,٨٠٣		١٤,٦٢٠,٩٩٣
التكاليف الاستثمارية			١١,٤٥٢,٦٤٠
صافى القيمة الحالية=(القيمة الحالية للتدفقات النقدية-التكاليف الاستثمارية)			٣,١٦٨,٣٥٣

Year	السنة
Cash Flow	التدفق النقدي
10% Discount Factor	معامل الخصم 10%
NPV	صافي القيمة الحالية
Year 1	السنة الأولى
Year 2	السنة الثانية
Year 3	السنة الثالثة
Year 4	السنة الرابعة
Year 5	السنة الخامسة
Total	الإجمالي

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Investment Costs	التكاليف الاستثمارية
NPV = (Present Value of cash flows – investment costs)	صافي القيمة الحالية = (القيمة الحالية للتدفقات النقدية – التكاليف الاستثمارية)

- **Calculating Average ROI**

The average return on investment is calculated by deducing the annual rate of return for 5 years and calculating the average rate for the five years.

السنة	صافي الربح السنوي	معدل العائد سنويا
السنة الاولى	٢,٣١٠,٩٤٨	%٢٠
السنة الثانية	٢,٨٧٢,٤٣٥	%٢٥
السنة الثالثة	٣,٣٨٦,٩٠٠	%٣٠
السنة الرابعة	٣,٩٨١,٢١٩	%٣٥
السنة الخامسة	٤,٦٦٧,٦٤١	%٤١
التكاليف الاستثمارية	١١,٤٥٢,٦٤٠	
متوسط العائد على الاستثمار		%٣٠

Year	السنة
Annual Net Profit	صافي الربح السنوي
Annual ROI	معدل العائد سنويًا
Year 1	السنة الأولى
Year 2	السنة الثانية
Year 3	السنة الثالثة
Year 4	السنة الرابعة
Year 5	السنة الخامسة
Investment Costs	التكاليف الاستثمارية
Average ROI	متوسط العائد على الاستثمار

- Payback period

The payback period is calculated in two steps. The first is to calculate the cash inflows during the first five years of the project, until the amount of investment costs are covered as follows:

- Step 1:

السنة	٠	١	٢	٣	٤	٥
التدفق السنوي الداخل	(١١,٤٥٢,٦٤٠)	٢,٩٤٩,٠٨٠	٣,٣٦٠,٥٦٧	٣,٨٧٥,٠٣٢	٤,٤٦٩,٣٥١	٥,١٥٥,٧٧٣
التدفق التراكمي	٠	(٨,٥٠٣,٥٦٠)	(٥,١٤٢,٩٩٣)	(١,٢٦٧,٩٦١)	٣,٢٠١,٣٩٠	٨,٣٥٧,١٦٣

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Year	السنة
Annual Cash Inflows	التدفق السنوي الداخل
Cumulative Flows	التدفق التراكمي

- Step 2: This step is carried out in accordance with the following law to determine the payback period

PBP = No. of years of negative cash flows + absolute value of last negative cumulative cash flow ÷ cash inflow of the following year		
Number of Years of Negative Cash Flows	+	absolute value of last negative cumulative cash flow cash inflow of the following year
3	+	1,267,961 4,469,351
3	+	0.28
PBP (months)	=	36
PBP (Years)		3

Thus, the payback period is estimated at 3 years.

5. Financial Feasibility Study Conclusion:

The financial feasibility study would be summarized as follows:

Project Study Period	5 years
Investment Costs	11,452,640
Net Present Value of Cash Inflows	3,168,353
Return on Investment (ROI)	30%
Payback Period (PBP)	36 months

IX: Results and Recommendations

It is evident from the study that:

- The project could achieve profits on the short term.
- The potentials are available to set up the project; starting from the availability of machinery and tools required for the production of the final product and the easiness of providing equipment as well as the current climate that encourages investment in Egypt.

Accordingly, the set-up of the project is feasible.

- Note:

Data mentioned in this feasibility study are preliminary indicative estimates according to data received from IDA for the purpose of Investment map of GAFI, and may not be used in front of banks, court, or any other governmental entity.

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