

Islamic Republic of Iran
Organization for Investment, Economic and Technical Assistance of Iran

Technical-Economic Pre-Feasibility Summary

Plan Name:

Establishing hospital dialysis units

Sector:Services

subsector:treatment

isic code:3311512703

The owner of:
Industry, Mine and Trade

Counselor plan:
Razi University

Plan Address:
Economic Zone of Islamabad-e-Gharb

P.F.S Preparation Date:
23/10/2024

National Investment Opportunities Database
Management of Iran
Shahrig Engineering Group
www.shahrig.com



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Abstract of the plan

PROJECT PROFILE - SUMMARY SHEET

Project Introduction
1- Project title: Establishment of hospital dialysis units
2- Sector: Health and treatment Sub Sector: Establishing a hospital dialysis department, providing hemodialysis services
3- Products / Services: A dialysis center is a treatment center that is established to provide dialysis and surgery services to patients with kidney problems. Kidneys are responsible for preventing the accumulation of excess water and substances in the body. When the kidneys are damaged and cannot do their work for any reason, waste materials and salt accumulate in the blood and poison the body. At this time, dialysis should be done. Dialysis or blood purification is a type of medical treatment by which blood waste products are taken directly from the blood of patients with kidney failure and directed out of the body. Dialysis is an operation that replaces many of the normal duties and responsibilities of the kidneys. Kidneys are two organs located on both sides behind the abdominal cavity. Dialysis allows people to live a good and useful life even though their kidneys are no longer working well. The services that can be provided in this medical center are evaluation and examination, imaging, dialysis and health care.
4- location (address): Kermanshah Province, Imam Reza Hospital and Imam Khomeini Hospital
5- Project description: This project is designed based on the capacity of 60,000 patients per year, and after obtaining the necessary permits, it will start construction and obtain an operating license, and then it will start operating. to cover his expenses and earn annual income. According to the existing standards for the establishment of hospital dialysis units, a total of 1800 square meters of infrastructure is required to set up hospital dialysis units with a capacity of 60,000 patients per year. The ceiling considered for the implementation of this plan is 2000 square meters of land. For this complex, a power supply and transformer have been selected, which will be provided from the electricity of Imam Reza and Imam Khomeini hospitals. Also, the concession of water from the mentioned hospitals has been considered for the complex. Plumbing of parts of the dialysis department of hospitals will be done by a qualified contractor.
6- Annual production capacity: Capacity of 60 thousand patients per year

Project Status
7- Local / internal raw material access : yes
8- Sale : - Anticipated local market :50% - Anticipated export market :50%

9 – Project total time (from start of activities to start of commercial operation in years) :
The implementation of the project until its operation is planned for 18 months.

10- Project status :

- Feasibility study available? Yes
- Required land provided? No
- Legal permissions (establishment license, foreign currency quota, environment, etc) taken? No
- Partnership agreement concluding with local /foreign investor? No
- Financing agreement concluding? No
- Agreement with local /foreign contractor(s) concluding? No
- Infrastructural utilities (electricity water supply, telecommunication, fuel, road, etc) procured? yes
- List of know- how, machinery, equipment, as well as seller /builder companies defined yes
- Purchases agreement machinery, equipment and know-how concluded? No

Financial Table

11- Financial structure :

Descriptions	Local Currency Required			Foreign Currency Required Million Euro	Total Million Euro
	Million Rials	Rate	Equivalent in Million Euro		
Fix Capital	149307	700000	0.21		0.21
Current Capital	1658970	700000	2.36		2.36
Total Investment	1808277	700000	2.58		2.58

- Value of foreign equipment / machinery0..... Million Euro
- Value of local equipment / machinery1.081..... Million Euro
- Value of foreign technical know-how.....0..... Million Euro
- Value of local technical know-how.....0..... Million Euro
- Net present value (NPV):2.71..... Million Euro
- Internal Rate of Return (IRR): 38.34.... %
- Payback Period4yers & 1month & 8 Days
- Capital Rate of Return: ...20..... %

General Information

12 - Project type : Establishment ☒

Expansion and completion ☐

13- Company Profile

-Name (legal /natural persons) : Yosef Mohamadifar

-Company Name : Razi University

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- Company's legal structure :

Government ☒

Non-Governmental ☐

Public non-governmental ☐

Introduction of the project

1- Project Title: Establishing Hospital Dialysis Departments

2 - Sector: Healthcare

Sub-Sector: Establishment of a Hospital Dialysis Unit, Provision of Hemodialysis Services

3 - Services/Products:

A dialysis center is a medical facility established to provide dialysis treatment and surgical services to patients with kidney disorders. The kidneys are responsible for preventing the buildup of excess water and waste in the body. When the kidneys are damaged and can no longer function properly, waste products and salts accumulate in the blood, leading to toxicity in the body. In such cases, dialysis becomes necessary.

Dialysis, or blood purification, is a medical treatment that directly filters waste products from the blood of patients with kidney failure and removes them from the body. Dialysis serves as a substitute for many of the natural functions and responsibilities of the kidneys. The kidneys are two organs located on either side of the back of the abdominal cavity. Dialysis enables individuals to lead a healthy and productive life even when their kidneys no longer function properly.

Services provided by this medical center include:

- Evaluation and examination
- Imaging
- Dialysis
- Health monitoring and care

4 - Project Location: Kermanshah Province

- Imam Reza Hospital
- Imam Khomeini Hospital

5 - Project Description (Land, Building, Infrastructure, etc.): This project is designed for an annual capacity of 60,000 patients. After obtaining the required permits, construction will begin and an operating license will be issued, after which the facility will commence operations. According to existing standards, establishing hospital dialysis departments with a capacity of 60,000 patients per year requires a total built-up area of 1,800 square meters. The land area allocated for this project is 2,000 square meters. The necessary power supply and transformer capacity have been secured, which will be provided from the electrical systems of Imam Reza and Imam Khomeini Hospitals. Additionally, water allocation for the facility has been arranged from these hospitals. The piping for the dialysis sections of the hospitals will be installed by qualified contractors. Through its annual revenue from medical services, the

facility will be able to cover its costs and generate annual income.

6 - Annual Production Capacity: Capacity of 60,000 patients per year

Project Status:

7- Access to raw materials needed for the project from domestic sources: Yes

8- Sales:

Estimated domestic market: 50 (percent)

Estimated foreign market: 50 (percent)

9- Total time required for project implementation: The implementation phases of the project until its operation are planned for a duration of 18 months.

10- Project status: (Yes/No)

Is the feasibility study of the project available? Yes

Has the required land been acquired? No

Have legal permits (construction permit, foreign exchange allocation, environmental permit, etc.) been obtained? No

Has a partnership agreement with a domestic or foreign partner been concluded? No

Has the project financing agreement been concluded? No

Has a contract been signed with a domestic or foreign contractor? No

Have infrastructure facilities (electricity, water, telecommunications, fuel, roads, etc.) been provided? Yes

Has a list of technical know-how, equipment, and also companies selling or manufacturing the product been specified? Yes

Has a contract for purchasing equipment and technical know-how been concluded? No

Financial Structure

11- Financial structure:

Total amount in millions of euros	Foreign currency required (M.EUR)	Local Currency Required			Description
		Equivalent to M.Euro	Parity rate (Rial)	(Million Rials)	
0.21		0.21	700000	149307	Fixed Capital
2.36		2.36	700000	1658970	Working Capital
2.58		2.58	700000	1808277	Total Investment

Value of foreign machinery and equipment: - million euros

Value of domestic machinery and equipment: **1.081** million euros

Value of foreign technical know-how and expertise: - million euros

Value of domestic technical know-how and expertise: - million euros

Net present value (NPV): **2.71** million euros

Internal rate of return (IRR): **38.34%**

Payback period: **4 years, 1 month, and 8 days**

Minimum expected rate of return: **20%**

General Information

12-Financial Structure:

Project Type: Establishment ☒ |

Completion and Expansion ☐

13- Company Profile

- **Name (Legal/Natural persons):** 1. Dr. Yosef Mohamadifar 2. Dr. Bijan Rezaee

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Web Site: <https://en.razi.ac.ir>

- **Company's legal structure :**

Government ☒

Non-Governmental ☐

Public non-governmental ☐

Project Location:

Province:

Kermanshah Province, with an area of 25,009 square kilometers and its capital in Kermanshah city, is the 17th largest province in Iran. It is located in the western part of the country between 33°40' to 35°18' north latitude and 45°24' to 48°07' east longitude. It borders Kurdistan Province to the north, Lorestan and Ilam Provinces to the south, Hamadan Province to the east, and Iraq (with a 371 km shared border) to the west. The average elevation is about 1,200 meters above sea level, and the province covers 1.5% of Iran's total area.

According to the latest national divisions, Kermanshah Province consists of **14 counties, 31 cities, 86 rural districts, and 2,793 inhabited villages**. Based on the 2016 census, its population was **1,952,434**, with a density of **78 people per square kilometer**. The most populous city is **Kermanshah (the provincial capital)**, with **946,651 residents**.

The province ranks **11th** in total road length (excluding rural roads), **17th** in highways/freeways per 1,000 km of roads, and **18th** in primary road length. Kermanshah County has the largest share of roads due to its size.

With an extensive network of intercity and rural roads, the province is actively upgrading many routes to highways. Kermanshah also has **six border markets and official crossings** (Khosravi, Parvizkhan, Sumar, Shushmi, Sheikh Saleh, and Tilehkooh), enhancing its potential for tourism and foreign currency revenue. **Kermanshah International Airport** is among Iran's top airports in flight frequency, and a planned railway will connect to the Khosravi border and Iraq.

In Iran, an estimated **40,000–50,000 patients** require dialysis, with **95%** undergoing hemodialysis and the rest on peritoneal dialysis. By 2028, the number of kidney failure patients is expected to **double**. Currently, there are **540 active hemodialysis centers** nationwide, **82%** of which are state-run.

County:

Kermanshah's advanced medical facilities, offering specialized and super-specialized services, have established it as the **healthcare hub of western Iran**. Its proximity to Iraq (particularly the Kurdistan Region) creates opportunities for **medical tourism**, attracting international patients. Expanding healthcare services for these patients can also boost tourism, transportation, trade, and other sectors.

However, **hemodialysis patients** (requiring **3 sessions per week, 4 hours each**) are limited to local treatment due to their condition. Kermanshah Province has **616 dialysis patients** and **189 dialysis machines**, some of which need repairs due to wear and tear.

Project Site:

Initial feasibility studies identified **Imam Reza Hospital** and **Imam Khomeini Hospital** in Kermanshah as suitable locations, considering infrastructure, workforce, and patient accessibility.

- **Imam Reza Hospital (515-bed):** The largest and most advanced medical center in western Iran, managed by Kermanshah University of Medical Sciences. The **11-story building** (60,000 m²) is located in northern Kermanshah on the slopes of the northern mountains.

- **Imam Khomeini Hospital (220-bed, 200 active):** Located on Enghelab Street, this facility covers **2,700 m²** (1,200 m² built area) and is also managed by Kermanshah University of Medical Sciences.

Access to Infrastructure:

Given the need to determine a precise location for project implementation, the following assessments have been made regarding **electricity and gas infrastructure**:

Location of infrastructure provision	Distance to the project site	Required infrastructure	row
The mentioned hospitals	0	Water	1
The mentioned hospitals	0	Electricity	2
The mentioned hospitals	0	Gas	3
The mentioned hospitals	0	Telecommunication	4

Project Technical Specifications:

Product:

A **dialysis center** is a medical facility that provides **dialysis treatment and surgical care** for patients with kidney failure. The kidneys filter waste and excess fluids from the blood; when they fail, toxins accumulate, making dialysis necessary.

Dialysis is a life-sustaining treatment that artificially removes waste and excess fluids from the blood, replicating kidney function. The center will offer:

- **Diagnostic and evaluation services**
- **Medical imaging**
- **Dialysis treatment**
- **Health monitoring and care**

Types of Dialysis Services:

1. **Hemodialysis:**
 - Blood is filtered through a dialysis machine.
 - Requires **regular sessions** (typically 3 times per week, 4 hours per session).
 - Performed in specialized centers.
2. **Peritoneal Dialysis:**
 - Uses the **abdominal lining (peritoneum)** as a natural filter.
 - Can be performed **at home** (daily or nightly).
 - Potential risks: **Infection, weight gain.**
3. **Ancillary Services:**
 - **Nephrology consultations** (regular check-ups and specialized care)

- **Nutritional counseling** (protein and electrolyte management)
- **Patient education** (catheter care, infection control)
- **Psychological support** (coping with chronic illness)

Project Requirements:

Space and Infrastructure:

- Designed for **60,000 annual dialysis sessions** (serving approximately 400 patients)
- Requires **30-40 dialysis stations**
- **Total built area: 1,800 m²** (with **2,000 m² land allocation**)

Utilities:

- **Power:** Connected to the electrical grids of **Imam Reza and Imam Khomeini Hospitals**
- **Water:** Supply sourced from the same hospitals
- **Gas:** Available for medical equipment and heating
- **Dialysis unit plumbing:** Installed by **certified contractors**

Implementation Plan:

- Construction to begin after **permits and approvals** are obtained
- **Revenue model:** Service fees will cover operational costs

Total cost (million rials)	Investment required for the project		Description	Description/Name of the creator	row
	Purchase/Manufacture Unit Price (in million Rials)	Required quantity/length			
700000	350	2000	Provincial hospitals	the earth	1
7600	38	200	According to the calculations	Landscaping operations	2
185 400	103	1800	Dialysis department	Construction	3
893000	-	-	plural		

Equipment and machinery:

Low Flux Dialysis Filter

High Flux Dialysis Filter

Classic 4008S hemodialysis machine

Hemodialysis machine 5008

Hemodialysis set

Three-piece hospital bed

Total costs (million rials)	Unit price (million rials)	number	Device title	row
756700	756700	1	All service equipment	1
756700	-	-	Total production line	

Raw materials and intermediate parts:
 Bicarbonate powder concentrate (Sobag and Bibag)
 Bicarbonate powder concentrate (Socart)
 Fistula needle set
 Dialysis solution (concentrated acidic solution)
 Detergents and disinfectants
 Restaurant raw materials

Total cost (million rials)	Unit cost (million rials)	Annual consumption after completion (patient service)	The name of the raw material	row
180000	3	60000	Collection of raw materials	1
equivalent to three percent			waste	
185400	plural			

Management and Human Resources:

Annual salary (million rials)	Total personnel salaries in one month (million rials)	Monthly salary (million rials)	work area	number	job title	row
۸۲۰۰	۶۸۳	۵۰۰	Management	1	CEO	1
۵۹۰۴	۴۹۲	۳۶۰	production	1	executive director	2
۴۱۰۰	۳۴۲	۲۵۰	Management	1	internal manager	3
۴۷۲۳۲	۳۹۳۶	۲۴۰	production	12	the nurse	5
۸۲۶۵۶	۶۸۸۸	۱۸۰	production	28	nurse's aide	6
۲۴۶۰۰	۲۰۵۰	۱۲۵	production	12	Services	7
۱۷۲۶۹۲	۱۴۳۹۱	۱۶۵۵		55	total	

Ownership and Legal Permits :

Land Ownership :

Based on Article 4 of the Executive Regulations of Sections "Kh" and "N" of Note (14) of the 2007 National Budget Law, the Ministry of Housing and Urban Development is required to provide the land required for the construction of a hospital by the non-governmental sector free of charge in all cities, except for the cities of provincial centers, where it is possible to transfer it .

In the event of a dispute regarding the impossibility of transferring the land, the opinion of the relevant governorate will be followed.

Note 1- In the cities of the provincial capitals of deprived areas that are declared by the Office of Deprived Areas Affairs of the Presidential Institution, the facilities of this article can be used.

Note 2- The construction location and the amount of land required in proportion to the hospital's capacity must be approved by the Ministry of Health, Treatment and Medical Education.

Intellectual Property and Privileges:

Based on Article 6 of the Executive Regulations of Clauses "Kh" and "N" of Note (14) of the 2007 National Budget Law, the Ministry of Health, Treatment and Medical Education, in cooperation with the Central Bank of the Islamic Republic of Iran, has taken action to designate an operating bank, and the credit specified in Clause (G) of Note (14) of the 2007 National Budget Law (for the payment of part of the interest on bank facilities to hospital builders) will be made available to the said bank to be used based on the memorandum of understanding concluded between the said Ministry and the operating bank.

Also, based on Article 7 of the executive regulations of paragraphs "Kh" and "N" of Note (14) of the 2007 National Budget Law in implementing the provisions of paragraph "C" of Article (145) of the Law on the Fourth Economic, Social and Cultural Development of the Islamic Republic of Iran and the subject of paragraph "H" of Note (145) of the 2007 National Budget Law, the National Management and Planning Organization is required, when exchanging agreements with the Ministries of Health, Medical Education and Housing and Urban Development, to allocate up to fifteen percent (15%) of the credits for capital asset acquisition plans for hospital construction from the health and treatment section to assist hospital builders by the non-governmental sector.

Legal permits:

After registering a commercial company for the hospital sector, investors must submit the company's articles of association, a company registration notice in the official newspaper, a notice of the latest changes in the company, and a list of investors and shareholders to the Deputy Minister of Health. After the documents are reviewed by the experts of the Health Department and their inspection of the project site, an establishment permit or in-principle approval for the establishment of a hospital ward is issued. After obtaining in-principle approval for the construction of a hospital, investors are required to begin construction operations for the construction of the hospital ward within a maximum of 6 months and to report the project progress to the Health Department from time to time. Investors must submit property-related documents (property title deed or lease) during construction operations. Then, the architectural, mechanical, and structural drawings of the hospital must be approved by the Health Department's Physical Resources Management. Obtaining work safety and protection approval from the Ministry of Cooperatives, Labor, and Social Welfare is also mandatory for hospital wards. At this stage, other inquiries such as environmental, fire, and environmental health approval must be obtained by the founders. The founders are also required to submit the list of personnel and technical officials of the hospital ward and the list of medical equipment to the Health Department. Finally, after the documents are approved and the process is completed, an operating license is issued.

Specifically, the establishment of a dialysis unit requires the following necessary and non-necessary legal permits:

1- In-principle approval (required): from the Vice-Chancellor of the relevant University of Medical Sciences, which is issued after confirming the qualifications of the founders.

2- Operating license (required): This license is issued after the establishment and equipping of the center, and the submission of necessary documents such as approval of the

construction and equipping of the building, a list of equipment, and the introduction of technical personnel.

3- Explanatory plan (not necessary): includes technical, financial and economic details of the project to attract bank facilities and obtain permits

4- Confirmation of the place of service provision with ownership or lease documents (required): Provide a valid ownership or lease document for at least 5 years

5- Contract with laboratory and ambulance centers (required): To provide ancillary services

Market and competition review:

Given the prevalence and incidence statistics of dialysis patients and its growth rate, which predicts that the number of patients will double by 1407 on the one hand, and the growth rate of dialysis services in the public sector, which is expected to be less than the growth rate of the disease, on the other hand, the existence of dialysis services in the private sector is justified. The provision of dialysis services in Kermanshah province is currently only provided in the public sector, and the nature of the services is such that the services are limited to the geographical area of each city, and therefore only local competitors should be evaluated. As a result, with the addition of private sector services, only the public sector services that currently exist can be evaluated as a competitor with a very low level of competition. Here, the issue of price in competition is of the utmost importance, so that public sector services are fully covered by insurance and do not involve any costs for patients, and if the private sector cannot provide services at a reasonable price, the possibility of failure in the market becomes very high.

Introduction to the target market:

The geographical scope of the target market is only Kermanshah city (the location of the project) and includes dialysis patients who need to receive hemodialysis services and its ancillary services. Patients who, for various reasons, do not have the desire or ability to receive dialysis services from the public sector or are applicants for higher quality services are identified as target customers. It seems that due to the increasing growth rate of dialysis patients and the limitation of service provision in the public sector, about 25 percent of dialysis patients will be forced to use private sector services by 1407. This is in a situation where the capacities of the public sector are not developed or exhausted.

General risks

Risk is the product of the probability of an event occurring and its results for a certain period of time. Any type of activity in the implementation process faces the possibility of risks that can prevent the realization of the expected desire or part of it. Below, some of the risks of the plan to establish hospital dialysis units have been examined and some coping strategies are proposed. In summary, regarding the strategy to face the risks of this plan, it can be said that some of the risks that are very small and scattered and have a very low probability of occurrence or cannot be transferred will be maintained; for some risks, the 'avoidance and avoidance' strategy has been used; some of the risks

Project implementation schedule

M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M		
oo	oo	oo	oo	oo	oo	oo	oo	oo	oo	oo	oo	oo	oo	oo	oo	oo	oo		
n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1		
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Project Financial Plan:

Cost Estimate:

In general, the investment of the project is in two forms, fixed investment and initial working capital, depending on the stages of implementation and operation, and the capital required in the pre-operation and creation of the project is provided through fixed capital and the capital required during the operation period is provided through working capital. The fixed investment of the project includes investment costs in land, landscaping and buildings, machinery and equipment, facilities, office equipment and pre-production expenses. These types of costs are incurred at the beginning of the project and before operation and are depreciated over the life of the project according to their useful life. Working capital includes the capital required during the operation of the project. The working capital of a production unit consists of a set of facilities, inventories and work in progress as well as liquidity to use and operate fixed investment in order to maintain, continue and continue the operations. The determination of the basis for the amount of inventories, work in progress, and receivables depends on the conditions of the supply, production, and sales processes and the business environment. In this section, the evaluation and estimate of the investment required to carry

out the project (based on base year prices) has been estimated and calculated. The cost estimate for the hospital dialysis service project is listed in the table below:

Cost estimation

Cost (million rials)	Subject	row
1658970	Fixed Investment	1
149307	Operating Expenses (Working Capital)	2
1808277	Total	3

Fixed investment estimate (capital costs)

Considerations	Percentage of total	Total investment (million rials)	Title	row
	0.42	700000	Land	1
	0.00	7600	Landscaping	2
	0.11	185400	Buildings	3
	0.46	756700	Machinery and equipment	4
	0.00	0	Public facilities and equipment	5
	0.00	0	Transportation vehicles	6
Based on defined assumptions, a percentage of the building investment	0.01	9270	Office supplies and other (unforeseen)	7
	0.00	0	Intangible assets	8
	1	1658970	Total	9

•The cost of office supplies is calculated as 2%of the total building investment.

Summarizing costs and analyzing fixed and variable costs

Variable cost		Fixed cost		Total cost		Description
Share	Amount (million rials)	Share	Amount (million rials)	Share	Amount (million rials)	
1 .00	185,400.00	0 .00	0.00	0 .30	185,400.00	Raw materials and packaging costs

0 .60	103,615.20	0 .40	69,076.80	0 .28	172,692.00	Salary and wages costs
0 .80	24,576.00	0 .20	6,144.00	0 .05	30720	Energy costs (water, electricity and fuel)
0 .80	28,044.00	0 .20	7,011.00	0 .06	35,055.00	Repair and maintenance
0 .00	0.00	1 .00	0.00	0 .00	0.00	Financial facilities costs
0 .05	829.49	0 .95	15,760.22	0 .03	16,589.70	Insurance
0 .00	0.00	1 .00	94,188.98	0 .15	94,188.98	Depreciation costs
0 .80	42,771.65	0 .20	10,692.91	0 .09	53,464.57	Administrative and selling costs
0 .50	14,702.76	0 .50	14,702.76	0 .05	29,405.51	Unforeseen costs
0 .65	399,939.10	0 .35	217,576.67	1	617,515.76	Total
324000		Production amount to achieve break-even		0.27	Percentage of production at break-even point	

- 1-1- •Raw material costs are calculated as 100%of variable costs
 - 1-2- •Salary costs are calculated as 40%of fixed costs and 60%of variable costs
 - 1-3- •Energy costs are calculated as 20%of fixed costs and 80%of variable costs
 - 1-4- •Maintenance costs are calculated as 20%of fixed costs and 80%of variable costs
 - 1-5- •Insurance costs (equivalent to 1%of the total investment value) are calculated as 95%of fixed costs and 5%of variable costs
 - 1-6- •Depreciation costs are calculated as 100%of fixed costs (building depreciation is 2%, machinery and equipment 4%, facilities 10%, vehicles 20%and office supplies 10%)
 - 1-7- •Administrative and sales costs (equivalent to 20%of total costs) are calculated as 20%of production costs and 80%of non-production costs
- Unforeseen costs (equivalent to 20%of total costs) is calculated as 50%fixed costs and 50% variable costs.

The major items in determining working capital are:

-Raw materials (domestic and foreign): In order to prevent interruptions in the production process, depending on the type of industry, production volume, source and method of supplying materials, the time interval required from the ordering stage to the receiving stage of materials, the time of delivery and transportation, the amount of raw materials, auxiliary materials and packaging required as one of the working capital items and its storage period for a period are determined. In the present plan, the coverage period of the material inventory is considered to be 15days.

-Manufactured and in-process goods: Considering the stages and method of production, the time required to manufacture the goods and store them in the warehouse is examined and the related costs are considered as working capital. In the present plan, the coverage period for goods in-process and manufactured goods is considered to be 15days.

-Expected receivables from sold goods that are collected in the short term. The period for obtaining the expected funds must be determined. In this plan, cash is considered in accordance with the conditions of the Iranian market.

-Revolving funds to pay the company's current expenses are considered as a cash balance or revolving funds in calculating working capital based on production costs (without considering the costs of raw material production and depreciation). In this plan, it is considered equivalent to 1month.

برآورد سرمایه در گردش (هزینه های تولیدی)

1412	1411	1410	1409	1408	1407	1406	1405	1404	1403	title
9	9	9	9	9	9	9	9	8	6	
,270.	,270.	,270.	,270.	,270.	,270.	,270.	,270.	,343.	,489.	Raw materials
00	00	00	00	00	00	00	00	00	00	

1 4,39 1.00	1 4,39 1.00	1 4,39 1.00	1 4,39 1.00	1 4,39 1.00	1 4,39 1.00	1 4,39 1.00	1 4,39 1.00	1 2,95 1.90	1 0,07 3.70	Personnel rights
7 ,680. 00	7 ,680. 00	7 ,680. 00	7 ,680. 00	7 ,680. 00	7 ,680. 00	7 ,680. 00	7 ,680. 00	6 ,912. 00	5 ,376. 00	Salary - Other
1 80,0 00.0 0	1 80,0 00.0 0	1 80,0 00.0 0	1 80,0 00.0 0	1 80,0 00.0 0	1 80,0 00.0 0	1 80,0 00.0 0	1 80,0 00.0 0	1 62,0 00.0 0	1 26,0 00.0 0	Demands
7 7,58 4.56	6 8,08 9.52	5 9,83 2.97	5 2,65 3.36	4 6,41 0.21	4 0,98 1.40	3 6,26 0.68	3 1,97 0.28	2 6,13 8.91	2 1,55 8.14	Inventory of manufactured goods
2 88,9 25.5 6	2 79,4 30.5 2	2 71,1 73.9 7	2 63,9 94.3 6	2 57,7 51.2 1	2 52,3 22.4 0	2 47,6 01.6 8	2 43,3 11.2 8	2 16,3 45.8 1	1 69,4 96.8 4	plural
9 ,495. 04	8 ,256. 55	7 ,179. 61	6 ,243. 14	5 ,428. 82	4 ,720. 71	4 ,290. 41	2 6,96 5.47	4 6,84 8.97	1 69,4 96.8 4	Increase or decrease in working capital

Revenue estimate:

Project revenues

Total revenue (million rials)	Price (million rials)	Production rate after completion (patient service)	Product name	row
1200000	20	60000	Providing dialysis services	1
1200000			Plural	

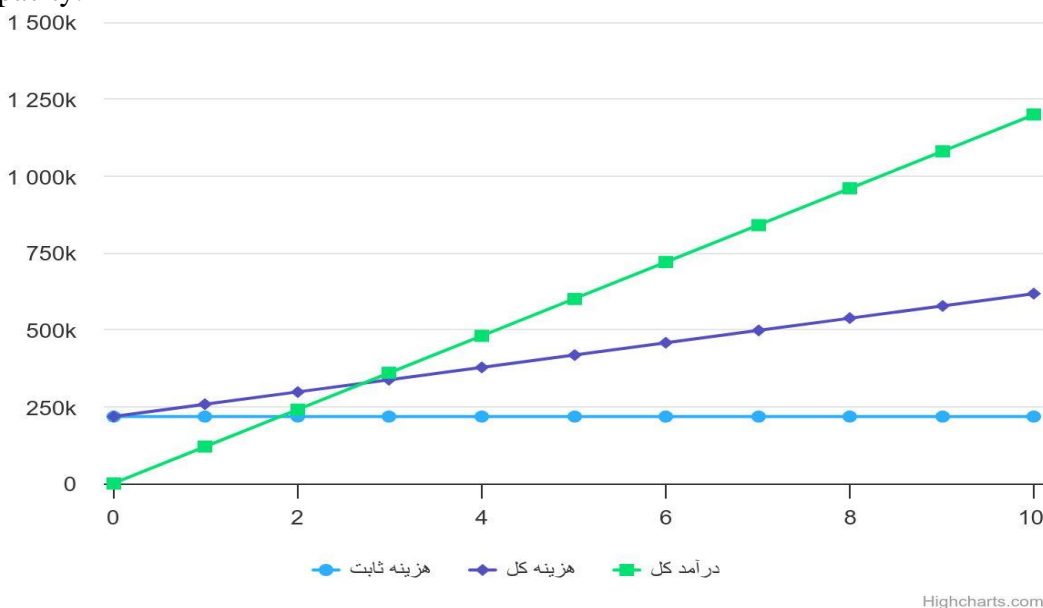
Project revenues, taking into account inflation and capacity utilization percentage (million rials)

Revenue considering capacity utilization	Income taking inflation into account	Capacity utilization	Inflation	year
---	---	-------------------------	-----------	------

		percentage		
805,000	1,380,000	70	0.15	1,403
1,428,300	1,587,000	90	0.15	1,404
1,825,050	1,825,050	100	0.15	1,405
2,098,807	2,098,807	100	0.15	1,406
2,413,628	2,413,628	100	0.15	1,407
2,775,672	2,775,672	100	0.15	1,408
3,192,023	3,192,023	100	0.15	1,409
3,670,827	3,670,827	100	0.15	1,410
4,221,451	4,221,451	100	0.15	1,411
4,854,669	4,854,669	100	0.15	1,412

Break-even analysis:

From an economic perspective, break-even point analysis is an important technique used to study the relationships between costs, revenue, and profit. By definition, break-even point is the point at which operating the project neither generates a profit nor a loss. In other words, break-even point analysis determines the points at which sales revenue equals production costs, and is thus used to analyze what effect a change in product volume will have on profit; the percentage of sales at the break-even point is 38.34%, meaning that in this project, to achieve a point where we have neither a profit nor a loss, we must use 38.34% of the nominal capacity.



Cost-benefit analysis

In project analysis, one of the most common methods is the benefit-cost ratio. In this method, the ratio of the present value of potential benefits to the present value of expenses is obtained. If this ratio is greater than one, the project has economic justification for implementation. In terms of this indicator, the project has favorable conditions.

The net present value criterion of the project (Net Present Value) is one of the other evaluation methods that is calculated as the following relationship:

The present value of the total cost of the implementation and operation period - the present value of the total income from implementation and operation NPV=

The present value of the scrapping value of fixed assets + initial investment - the present value of future cash flows NPV=

The net present value of the project at a discount rate of 25% is 1,902,926 million rials, which is positive, indicating the economic justification of the project.

Another method of evaluating investment plans is the internal rate of return or internal rate of return method. In fact, the internal rate of return is the interest rate or discount rate at which the present value of all the benefits of the plan is equal to the present value of its expenses. According to the calculations, the internal rate of return of the plan is estimated to be 38.34 percent, which is favorable compared to the minimum expected profit (Minimum Attractive Rate of Return).

Calculating some financial ratios:

1412	1411	1410	1409	1408	1407	1406	1405	1404	1403	Ratio Title	
7 .84	7 .56	7 .21	6 .81	6 .33	5 .76	5 .10	4 .25	3 .58	3 .63	Current Ratio	Liquidity Ratios
7.78	7.49	7.14	6.74	6.26	5.68	5.01	4.17	3.48	3.46	Instant Ratio	
0.92	0.90	0.87	0.84	0.79	0.73	0.66	0.57	0.44	0.26	Current Asset Ratio (Current Assets to Total Assets)	
0 .12	0 .12	0 .12	0 .12	0 .12	0 .13	0 .13	0 .13	0 .12	0 .07	Long-Term Debt to Equity Ratio	Leverage Ratios
0.13	0.14	0.14	0.14	0.14	0.15	0.15	0.15	0.14	0.08	Current	

										Debt to Equity Ratio	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Debt to Shareholders' Equity Ratio	
0.43	0.44	0.44	0.45	0.47	0.48	0.50	0.51	0.49	0.35	Total Asset Turnover Ratio	Activity Ratios
5.60	4.39	3.47	2.77	2.22	1.79	1.46	1.19	0.87	0.47	Fixed Asset Turnover Ratio	
0.68	0.68	0.68	0.67	0.67	0.66	0.65	0.65	0.64	0.58	Gross Profit Margin	Profitability Ratios
0.44	0.43	0.43	0.43	0.42	0.42	0.41	0.41	0.39	0.32	Sales Profit Margin	
0.19	0.19	0.19	0.19	0.20	0.20	0.20	0.21	0.19	0.11	Return on Assets Ratio	
0.21	0.21	0.22	0.22	0.23	0.23	0.23	0.24	0.22	0.12	Return on Equity Ratio	

The Profitability Index shows how much economic profit will be obtained over the life of the project for each unit of money invested in the project.

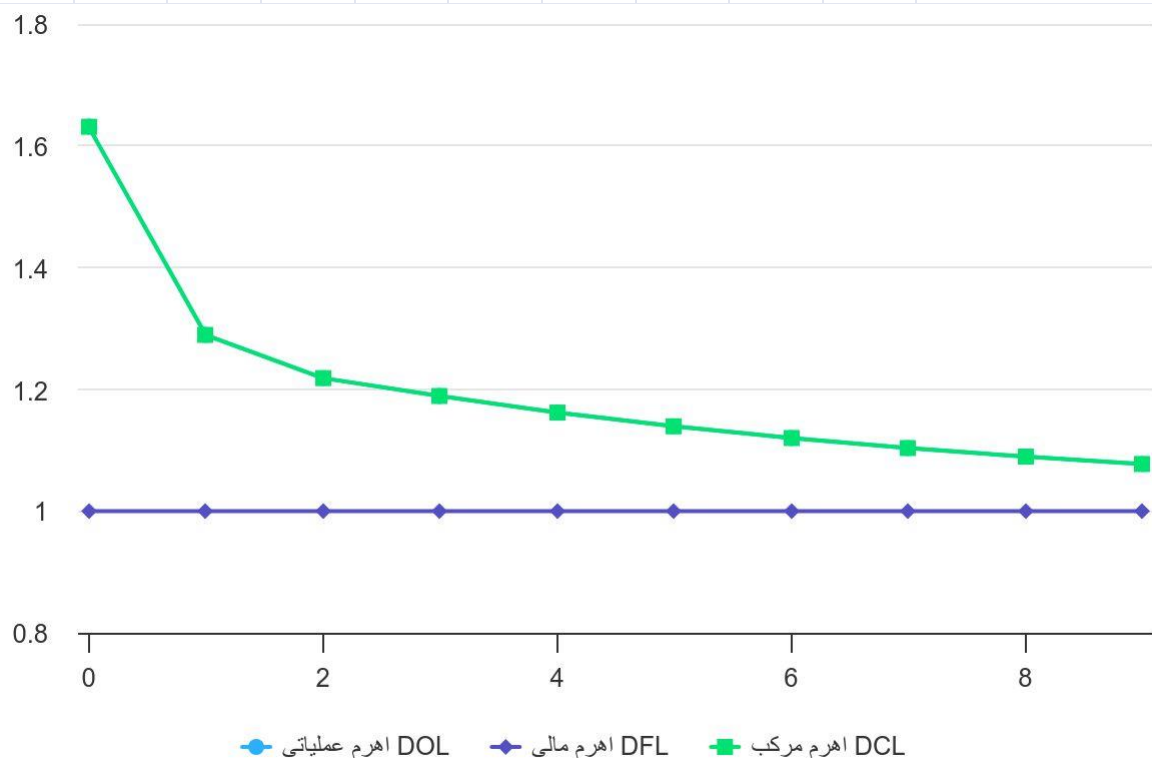
The Payback Period of Investment Project is the period of time it takes to earn the initial capital of the project from its income. In other words, the payback period indicates the period of time it takes for the initial investment to be recovered. This criterion shows the speed of return on money and the power of the project to protect against risk. The (simple) payback period of the project is estimated to be 18months according to calculations.

Performing project sensitivity analysis:

In sensitivity analysis of projects, the percentage of changes in the internal rate of return (IRR) of the project is measured in relation to changes in some basic parameters and variables of the project. In this plan, the analysis is carried out based on major variables such as sales revenue, fixed costs of the project, and operating costs of the project. The table below shows the results of the sensitivity analysis conducted on the variables of operating leverage DOL, financial leverage DFL, and compound leverage DCL.

The amount of operating leverage and compound leverage (the company's overall risk) has always been decreasing from the first year to the tenth year, meaning that the risks have been decreasing. This is also clearly evident in the chart below.

1412	1411	1410	1409	1408	1407	1406	1405	1404	1403	Leverage Title
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	Operating
08	09	10	12	14	16	19	22	29	63	Leverage DOL
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	Financial
00	00	00	00	00	00	00	00	00	00	Leverage DFL
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	Compound
08	09	10	12	14	16	19	22	29	63	Leverage DCL



Highcharts.com

Project Operation Duration:

In general, there are three types of project life cycles in production projects as follows:

- *Project life cycle or construction phase.
- *Operation life cycle or production or production phase.
- *Product life cycle.

The project life cycle is the construction phase of the project. In this phase, a lot of costs are usually paid. A successful project is a project that completes this phase in less than the specified time and cost. To achieve this, project management techniques must be implemented with proper control and on time so that if there is a problem, it can be corrected in the planning phase.

The operation life cycle includes the useful life of the operation, which in health and treatment projects is usually designed for 15 years. During the operation process, we will have income and expenses to provide services. But the amount of income is usually more than the costs, otherwise the project is not economically justified.

Summary:

The project is implemented by acquiring a land area of 2000 square meters, where construction and landscaping are planned to be carried out in buildings of 1800 and 200 square meters, respectively. The total investment in land, building and landscaping is estimated to be 893000 million rials.

The total investment before operation is also estimated to be 149307 million rials. With this calculation, the total fixed capital required is 1658970 million rials and the total working capital required for the project is 169497 million rials. The total investment of the project is expected to be 1828467 million rials from the resources contributed by the company's shareholders.

The internal rate of return (IRR) of the project is also estimated to be 38.34 percent, and the payback period (PBP) is estimated to be a maximum of 4 years, 1 month and 8 days.

The liquidity status of the plan and the payment of dividends to shareholders from the company's funds are also appropriate. Therefore, if the assumptions and predictions are realized, the plan under consideration will have desirable profitability and, given the financial results obtained, its implementation is recommended. The economic issues of the plan are summarized as follows.

Summary of project economic issues

Nominal capacity and its unit	Product Name	Exact activity title with code (ISIC)	Type of activity
60 thousand employees	Providing Hemodialysis Services	---	Establishment of a hospital dialysis unit
Required manpower	Annual Working Capital	Total fixed investment	Duration of implementation
55 people	(Million Rials)	(million riyals)	18 months
Profitability index	169497	1658970	Internal rate of return IRR
2.05	Applicant's Revenue (Million Rials)	Net present value NPV	% 38.34

Economic and Strategic Analysis

Internal Rate of Return (IRR): The internal rate of return of 38.34% indicates good profitability of the project. This rate of return significantly exceeds the bank interest rate and annual inflation and indicates a rapid return on investment and favorable profitability in the short and long term.

Net Present Value (NPV): The net present value of 1902926million rials clearly shows that this project will not only cover all initial investment costs but will also be very profitable. This number indicates the profitability and attractiveness of investing in this project.

Benefit-Cost Ratio (B/C): The benefit-cost ratio of 2.05 indicates that for every unit of cost, 2.05units of profit are obtained. This economic indicator confirms that investing in this project is very logical and profitable and can bring a good return.

Payback Period: A short payback period of 4years, 1month, and 8months means that investors can achieve a return on their investment in a very short period of time and after this period, only focus on profitability. This feature reduces investment risk and increases investor confidence.

Annual working capital and human resources: The need for 169,497million rials in annual working capital and the employment of 55human resources indicates a high potential for job creation and a positive impact on the local economy. This can also lead to government and social support.

Estimation of exchange rate changes during the project implementation period

Regarding the supply of project machinery and equipment, given that part of the equipment required to implement the project is supplied from abroad, an increase in the exchange rate will lead to an increase in the initial investment cost for project implementation, and if the exchange rate decreases, the initial investment cost for project implementation will decrease.

Given that part of the income from implementing the plan comes from providing services to foreign patients, exchange rate fluctuations will affect the income from providing services and the evaluation results.

Capital requirements, financing method and guarantees:

Foreign exchange capital required:

Amount of currency required	year	row
\$ 850	First	1
\$ 360	Second	2
0	Third	3
0	Fourth	4
0	Fifth	5

How to participate and provide the required capital:

Loans for establishing hospital dialysis units, considering the role of healthcare activities, using support mechanisms, are considered government policies for further development of healthcare. For those producers who are unable to establish hospital dialysis units through their own financial resources, they can use bank facilities. Of course, this also has its own conditions and criteria, which can be met if a loan is obtained to establish a hospital dialysis unit. Among these conditions is the economic viability of the project. If the costs exceed the income and profit, the project will definitely not be economically viable and can face the investor with great losses.

In order to increase people's access to healthcare facilities and encourage and participate in the non-governmental sector in investing in completing and constructing hospitals in needed areas, and within the framework of the provisions of paragraph "C" of Article (145) of the Fourth Economic, Social and Cultural Development Plan Law of the Islamic Republic of Iran, and within the framework of paragraphs C, H, K, N of Note (14) of the 2007 National Budget Law, and the provisions of this regulation, the following facilities and facilities are made available to the non-governmental sector:

A - Payment of part of the interest on bank facilities

B - Payment of part of the cost of constructing and completing the hospital from public resources

C - Free land allocation for the construction of the hospital

D - Allocation of partially completed government hospitals (less than 50% physical progress) for charitable purposes and free of charge

Return on investment:

The return on investment in the project for the production of solid and semi-solid medicines is amortized after about 4 years, 1 month, and 8 months, or in other words, the investment made is returned.

Incentives, features and benefits of the plan:

Financial support for production units includes granting bank facilities and their repayment methods, as well as tax exemptions, which, if appropriate, facilitate the implementation of the plan and provide conditions for investment. Some of these conditions are discussed below, which are not included in the plan and are merely for providing more information:

One of the laws that was approved and notified in order to increase people's access to medical facilities and encourage the participation of the non-governmental sector in investing in completing and building hospitals in needy areas was Note (14) of the 2007 Budget Law and the Regulations on the Transfer of Facilities and Facilities to the Non-Governmental Sector.

Within the framework of the provisions of paragraph "c" of Article (145) of the Fourth Development Plan Law and in the framework of paragraphs (c), (h), (k), and (n) of Note (14) of the 2007 National Budget Law, it has been stipulated that: a part of the profit from bank facilities or a part of the cost of building and completing the hospital should be financed from public resources. Also, the issue of free land allocation for building the hospital or the

allocation of partially completed government hospitals (less than 50% physical progress) on a gratuitous basis has been one of the other approvals of this legal directive.

Business Model Canvas:

بخش مشتریان	ارتباط با مشتریان	ارزش پیشنهادی	فعالیت های کلیدی	شرکای کلیدی
بیماران دیالیزی	مشاوره و راهنمایی	کیفیت بالا	ارائه خدمات دیالیز	شرکت های تامین تجهیزات پزشکی
خانواده های بیماران	پیگیری سلامت بیماران	دسترسی آسان	آموزش کارکنان	شرکت های بیمه درمانی
پزشکان و متخصصان	آموزش و اطلاع رسانی	پشتیبانی جامع	مدیریت نوبت دهی	مراکز تحقیقاتی و دانشگاه ها
شرکت های بیمه	کانال خدمت دهی		منابع کلیدی	
	بخش دیالیز بیمارستان		تجهیزات پزشکی	
	وسایت و اپلیکشن		کادر پزشکی	
	نظام ارجاع پزشکان		فضای فیزیکی	
جریان درآمد		ساختار هزینه ها		
هزینه خدمات دیالیز		هزینه تجهیزات پزشکی		
بهرنامه های حمایتی		هزینه نیروی انسانی		
		هزینه های عملیاتی		

Management Summary:

For this project, 1,658,970million rials will be invested as fixed capital in various items and 149,307million rials will be spent on obtaining permits, preparing maps, trial operation, etc. Considering this figure, the total investment in this project reaches 1,808,277million rials. On the other hand, in the first year of operation of the project, 169,497million rials of working capital are required, which for the second and third years are 216,346million rials and 243,311million rials, respectively. It should be noted that the percentage of utilization of the nominal capacity in the first, second and third years is %70, %90and %100, respectively. Also, estimates show that the total income of the project in percent of the nominal capacity is 1,200,000million rials. In total, the project will create 55jobs that will be active in different positions. This project also requires 1million rials in bank facilities, which is %0of the total investment required (fixed and revolving). The profit in the first year of this project is 258,523million rials, which in the tenth year, taking into account the scrap value and inflation considered in the assumptions, reaches 2,207,980million rials.

According to the calculations, the internal rate of return (IRR) of this project is 38.34percent, which is compared to the investor's expected rate of return of 20percent; this project is in a favorable situation; therefore, in terms of this financial indicator, investment in this project is recommended. Also, the project will have a return on investment in 4years, 1month and 8 days and will reach the break-even point with 27.20percent of the nominal capacity. The table below summarizes the most important financial data:

Interpretation	Amount	Title	row
That is, after 4 years, 1 month, and 8 days, the net profit of the project covers the initial investment.	49	Payback period	1
In this project, to reach a point where we have neither profit nor loss, we must use 27% of the nominal	27	Percentage of sales at	2

capacity		breakeven point	
That is, a total of 7.0% of total assets is financed by debt.	7.0	Debt ratio in the first year	3
That is, the company's current and long-term debt is 0.0% of equity.	0.0	Debt to equity ratio in the first year	4
That is, the sales volume is 34.7 times the value of total assets.	34.7	Total assets turnover ratio in the first year	5
That is, 57.6% of sales or income is net profit.	57.6	Net profit margin ratio in the first year	6
That is, 68.2% of sales or income is net profit.	68.2	Net profit margin ratio in the last year	7
Current assets are 3.6 times current liabilities.	3.6	Current ratio in the first year	8
Current assets are 7.8 times current liabilities.	7.8	Equals current liabilities.	9
That is, for every percent change in income in this project, net profit will change by 1.6%. .	1.6	Compou nd leverage	1 0
For each person employed in this project, an investment of 32,878 million rials is made.	32,87 8	Investme nt per person	1 1
For employment creation, 0 million rials of facilities	0	Employ	1

are used per person.		ment facilities	2
	2.1	Profitabil ity ratio	1 3
45.6 percent of the fixed investment of the plan is related to machinery and equipment, which accounts for the largest share of the investment items of the plan.	45.6	The most important investment item share	1 4