Investment Opportunities Map

Jordan Investment Board

Vehicle Tracking Devices Project

IT Sector

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The Project at a Glance	
Project Name	Vehicle Tracking Devices
Project Production Capacity	30,000 units / year
Manpower	22
Total Investment Cost	US$ 579 ,000
Initial Working Capital	US$ 245 ,000
Internal Rate of Return (IRR)	29.3 %
Breakeven Point	31 % of production capacity

Vehicle Tracking Devices Project

1. Introduction

1.1 Project Description

Jordan has sizeable transportation fleets. The government of Jordan is currently developing transportation legislations to solve the problems facing the owners of one or more vehicles who are trying to merge in transportation companies.

With the increasing size of company fleets, it is becoming very important to have current information about the locations and activities of the company vehicles. Precise updated information about vehicles helps increase the transportation companies' productivity, reduce delivery time and expenses.

The vehicle-tracking device is the major component of a vehicle tracking system. It is a telemetric device, which can be fixed on the vehicle as a part of mapping solution. Its function is sending and receiving signals that help to manage tracking vehicles locations and routes.

As the Jordanian telecommunication companies are using the latest GPS, GSM, and radio communication technology solutions in the transport infrastructure, the vehicle tracking system will rapidly gain popularity among shippers and other branches of business with fleets of passenger cars and special purpose vehicles, because of the practicality and benefits of this system.

The proposed project should produce high quality devices at competitive prices.

1.2 Potential Clients:

- Transportation Companies
- Passenger Car Companies
- Industrial Companies having fleets of vehicles.
- Government and other entities using large numbers of vehicles in their operations.

2. Market Aspects

2.1 Estimated Local Demand

The transportation sector is the main market for the proposed project products. The Department of Statistics data indicate that the number of transport establishments in Jordan was 1362 with a total number of 111,543 vehicles in the year 2002.

Table (1)
No. of Establishments & Vehicles by Economic Activity (2002)

Economic Activity	No. Establishments	No. of vehicles
Land Transport ; Transport via pipeline	682	55982
Passenger Land Transport	655	27262
Freight Transport by Land	25	28299
Total	**1362**	**111543**

Source: Department of Statistics.

2.2 Forecasted Future Demand

The number of Licensed Vehicles (Table 2) increased by an annual average rate of about 12.6 % during the years (1999-2003). Demand on vehicles is expected to continue to increase by the same rate.

Table (2)
Total number of Licensed Vehicles & Their Annual % increase
1999 - 2003

Year	No. of Vehicles	% Increase
1999	321,512	0.94
2000	372,517	15.86
2001	419,591	12.64
2002	542,812	29.37
2003	566,610	4.33
Average	-	12.63

Source: Department of Statistics.

The number of vehicles in the transportation sector is projected to continue to increase at an annual rate of 7%.

Table (3)
Future Forecast of the total number of Fleet Vehicles

Year	2005	2010	2015
Vehicle	136,600	191,600	268,800

2.3 Competition

In the absence of telecommunication devices production in the region, most of the Middle East countries will be potential markets for the project.

Current supply of telemetric devices is mainly from USA, EU, Japan and the Far East.

2.4 Proposed Project Capacity

The proposed project annual capacity is 30,000 devices based on 300 working days/year and 8 working hours per day.

The project's annual production is expected to progress as follows:

Table (4)
Production Size Development

Year	Capacity Utilization	Units
1	50 %	15,000
2	70 %	21,000
3	90 %	27,000

2.5 Projected Sales Revenues

The projected average sales price of the project's products is US$ 70 per unit, and hence the estimated total project revenues in the third year of production are about US$ 1.89 million.

(5)
Projected Sales Revenues

Year	1	2	3
US$	1,050,000	1,470,000	1,890,000

3. Technical Aspects

3.1 Project Location

The location of the project is proposed to be in one of the industrial cities in either the middle or the north provinces due to the following factors:

- Major local clients (Transportation Companies) are located in these areas.
- Availability of needed packaging requirements.
- Adequacy of infrastructure in industrial zones.
- Availability of required manpower.

3.2 Manpower

Table (6)
Manpower Requirements

Job	Required No.
General Manager	1
Administrative Clerk	3
Engineer	4
Software expert	2
Technician	10
Laborer	2
Total	**22**

The total annual salaries and wages of the above employees (including fringe benefits), in addition to overhead and administrative expenses are estimated at US$ 226 thousand.

3.3 Land & Buildings

Table (7)
Land and Buildings Cost

Item	Area m^2	Cost US$
Land (Industrial cities)	2,000	56,000
Buildings	600	120,000

3.4 Inputs & Consumables

- Electronic parts and auxiliary components such as cables, terminals, antennas, sensors with connectors will be imported from Germany and Asian countries.
- Some components like packaging materials and user manuals will be purchased from the local market.

3.5 Technology

The project will need the following technology (Germany is a major source):

- Computer programs will be deployed as servers at management offices to help managers track the positions of vehicles and their technical parameters, to be connected to the vehicles database using Local Area Network (LAN) or intranet.
- Technical returns to be considered in the device design.
- Cost of know how is estimated at 5% of the proposed sales price

4. Financial Aspects

Basic Assumptions

The financial analysis and indicators are based on the following assumptions:

1. Project operational life is 10 years.
2. Internal Rate of Return (IRR) is calculated at 100% equity ratio.
3. Income tax is calculated at 15% on net taxable income.
4. Net Present Value (NPV) is calculated at 12% discounted annual rate.
5. Initial working capital is based on the operating expenses needed for two months.
6. Operating expenses comprise raw materials, labor cost and overheads, utilities and other expenses.
7. Pre -operating expenses consist of studies fees, capital issue, licensing, training, trial operations and other similar expenses.

4.1 Project Investment Cost

Table (8)
Total Investment Cost

Item	US$
Land	56,000
Buildings	120,000
Machinery & Equipment	350,000
Transport means	50,000
Sub- Total (Fixed Assets)	**576,000**
Contingency, 10%	58,000
Pre – Operating Expenses	100,000
Initial Working Capital	245,000
Total Investment Cost	**979,000**

4.2 Financial Indicators

- ROI = 28.1 %
- IRR = 29.3 %
- NPV = 868 Thousand US$
- BEP = 31 % of production capacity
- Payback Period = 4 Years.