



USAID
FROM THE AMERICAN PEOPLE

PRIVATE DEAD SEA BUS TRANSPORTATION COMPANY

Business Plan-Final Copy

September 12, 2009

This publication was produced for review by the United States Agency for International Development. It was prepared by Structure Company

PRIVATE DEAD SEA BUS TRANSPORTATION COMPANY

BUSINESS PLAN FOR A BUS TRANSPORTATION COMPANY

USAID JORDAN ECONOMIC DEVELOPMENT PROGRAM

CONTRACT NUMBER: 278-C-00-06-00332-00

DELOITTE CONSULTING LLP

USAID/ECONOMIC GROWTH OFFICE (EG)

DECEMBER 2, 2009

AUTHOR: STRUCTURE COMPANY & SOUAD ABDELHAMID

DELIVERABLE NO: 5C.05.04.27.02.04

DISCLAIMER:

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY.....	1
2. VISION, MISSION & OBJECTIVES.....	5
2.1 Strategic Benefits	5
2.2 Values, Mission and Vision.....	5
2.3 Strategic Objectives.....	6
3. CURRENT OPERATIONAL MODEL.....	10
3.1 Bus Fleets.....	10
3.2 Employees Profile & Average Transportation Costs	11
3.2.1 Employees Profile	11
3.2.2 Transportation costs.....	13
3.3 Buses Current Operational windows	15
3.3.1 Current schedule for the 23 passengers Buses.....	15
3.3.2 Current schedule for the 23 passengers Buses.....	17
4. SWOT ANALYSIS	19
5. OPERATIONAL MODEL	21
5.1 Current Demand	21
5.2 Routes	21
5.3 SCHEDULES.....	25
6. TECHNOLOGY	28
7. HUB DESIGNS AND HEADQUARTERS.....	29
8. LEGISLATIONS, REGISTRATIONS & GOVERNANCE STRUCTURE	31
8.1 Legislations for registration & operation	31
8.2 Governance Structure	34
8.2.1 Company form.....	34
8.2.2 Share value	34
8.2.3 Illustration	34
9. ORGANIZATIONAL STRUCTURE.....	35
9.1 Job Descriptions	35
9.1.1 General Manager	35
9.1.2 Financial controller	35
9.1.3 Technology officer.....	35
9.1.4 Bus Controller.....	35
9.1.5 Assistants and front desk	35
9.1.6 Yard Supervisor.....	35
9.1.7 Drivers	36
9.2 Organizational Structure.....	36

10. FINANCIAL MODEL	38
10.1 Base Case Scenario	38
10.1.1 Assumptions.....	38
10.1.2 Projected Financial Statements	45
10.1.3 Feasibility Review.....	48
10.2 Sensitivity Analysis	49
10.3 Scenario One.....	50
10.3.1 Projected Financial Statements	52
 11. OTHER POTENTIAL SOURCES OF INCOME.....	 55

1. EXECUTIVE SUMMARY

Based on extensive consultation with owners and operators of hotels within the Dead Sea, a need was identified to enhance access of workers to the area through the establishment of a private bus transportation company and terminals.

As part of its initiative to improve employment opportunities and competitiveness of the area, the USAID Jordan Economic Development Program (SABEQ), has provided technical assistance to support the operators and owners of tourism development projects develop a business plan for the proposed company.

The business plan sets out the goals of the company, identifies its ownership and management structures and defines the required capital investments, cash flow and return on equity required for its implementation. The Plan aims at addressing the long term provision and delivery of service programs of the company which will improve access to and from the Area, and provide cost saving solutions to the owners of major tourism development projects in the Dead Sea.

The methodology adopted in developing the Business Plan entailed carrying out interviews with owners and operators of tourism development projects to assess the needs of existing and upcoming tourism development projects in the Dead Sea and gather required data to carry out a thorough analysis of the commuting behavior of employees working in existing hotels.

The Business Plan defines the operational model of the company, its funding requirements and commercial viability. Within the proposed company's operational model, the business plan defines governance and funding options to include but not limited to private sector and donor agencies for developing and implementing the different components of the private bus transportation company. Accordingly, an alternative transportation operational model was developed to optimize transportation efficiency and a financial model was elaborated to investigate the economic viability of the model

The table below highlights the current and future tourism development projects in the Dead Sea Area;

Table 1: Database of investigated stakeholders

Existing & committed projects in the Dead Sea ¹		
Project Owning Company	Project name	Status
National Co.for Tourism Development L.L	Dead Sea Movenpick Resort & Spa	Operational
Business Tourism Company	Jordan Valley Marriott Resort & Spa	Operational
Saudi Jordanian Hotel & Tourism Company	Kempinski Hotel Ishtar Dead Sea	Operational
Dead Sea Spa Hotel Company	Dead Spa Hotel	Operational
Social Security Corporation	Holiday Inn Resort Dead Sea	Operational
Sun Days International for Tourism Investment LTD	Al-Wadi Resort	Operational
Dead Sea Touristic & Real Estate Investment Company	King Hussein Bin Talal Convention Center	Operational
Social Security Corporation	Crown Plaza	Not Yet Operational
Saraya Holdings	Saraya Dead Sea	Not Yet Operational
Sama Jordan	Jordan Al-Khair	Not Yet Operational
Development & Investments Projects Fund (DIP)	Sweimeh Day Beach	Not Yet Operational
Technical for Buildings & Property Investment Services Company/Salam International	NA	Not Yet Operational
Al-Sanabel Co. for Tourism Investments	NA	Not Yet Operational
Development & Investments Projects Fund (DIP)	Amber Valley Luxury Resort & Spa	Not Yet Operational
Al-Jazeera Coast Company	NA	Not Yet Operational
Pella For tourism investments	NA	Not Yet Operational
International Investments Co	NA	Not Yet Operational
Arabian Sharm Investment Co	NA	Not Yet Operational
Crystal Company for tourism investments	Crystal City	Not Yet Operational
King Abdullah II fund for Development/Emaar International	Samarah Dead Sea Resort	Not yet Operational
Union Integrated Tourism	NA	Not Yet Operational
Union Lands Development	Dead Sea Jewels	Not Yet Operational
Jordan Dubai Capital	NA	Not Yet Operational
Winter Valley Tourism investment Company	Winter Valley Dead Sea by Swiss Hotel	Not Yet Operational

¹ As of December 2009

Currently, 1,465² employees are being commuted through six 50 passenger buses (1 of which is a rental), fifteen 23 passenger and one 27 passenger hotel busses, from and to the Dead Sea during peak times at 8:00 and 14:00. The operational time schedule was respected and maintained as is, although it is highly recommended that collaborative shift plans be developed by the operational hotels as to optimize the set up and bus utilization.

The business plan optimized the actual operational transportation model by congregating hotels' employees into operational hubs and routes as opposed to the current situation where small number of employees are being collected from far reach destinations. Accordingly, 10 hubs were identified and routes developed with stops along the routes as per table 2 below;

Table 2: Collection Hubs for operational routes and number of employees commuted per route

Hub	Areas served							Total Number of employees
Sweileh	Irbid	Ein El Basha / Baqaa	Jerash / Ajloun	Salt				23
Raghadan 1	8th Circle	7th circle	4th circle	Abdali	Raghadan / Muhatta			312
Raghadan 2	Adasieh	Marj El-Hamam / Naour	8th circle	7th circle	4th circle	Taba rbour	Raghadan / Muhatta	
Ras El-Ein	Ras - El Ein							50
Zarqa	Zarqa / Ruseifeh	Marka	Mafrq	Ramtha				68
Madaba	Madaba / Maeen	Sweimeh						45
Deir Alla	Sweimeh	Deir Alla	Kraimeh	Mid Ghor				45
Mazra'a	Mazra'a	Kerak	Tafeileh					20
Staff Housing	Joufeh / Rawdah	Sweimeh						635
South Shouneh	Karamah	Joufeh	Rawdah	South Shouneh	Sweimeh			267
TOTAL								1,465

Based on the above routes, it was identified that the company should have at least fifteen 23 passengers' buses and five 50 passenger buses to allow for an efficient transportation.

The Plan recommends that the company be established as private shareholding company to allow for an easy distribution of profits among shareholders. This form of governance, compared to other forms of company structure will allow the company's general assembly/ Board of Directors to have the flexibility to decide on a fair and transparent profits distribution process. Hence, profit should be distributed based on the number of bus seats owned by

² Employees of the following hotels: Jordan Valley Marriott Resort & Spa, Dead Sea Marriott hotel, Movenpick Resort & Spa Dead Sea, Kempinski Hotel Ishtar Dead Sea, Dead Sea Spa Hotel and the King Abdullah Convention Center.

each shareholder rather than their stake in the company. However, and as per the regulations in force, the company will be required to have a minimum of 10 buses and be capitalized at JD 1 million.

On the other hand, the company will be expected to employ a total of 32 employees and to have a simple organizational structure chart to support the prospected company's growth. Furthermore, the Plan recommends a site plan for the headquarters which would need to be further revised and detailed for implementation purpose.

In order to evaluate the financial viability of the company, two scenarios were elaborated. A base case scenario was developed assuming that the company will be established as a private shareholding company mainly servicing the existing operational hotels in the Dead Sea which would constitute its main shareholders. A second scenario was developed assuming that 3 new tourism development projects will own stake in the company upon its incorporation in years 2, 4 and 6. Both scenarios revealed the viability of the company with an expected Internal Rate of Return of 18.53% and 17.96% respectively. Furthermore, a sensitivity analysis was conducted under the base case scenario based on different fuel price scenarios (with the current price level being the base scenario), indicating that the company can maintain its selling price with a 25% increase of the current price levels.

Furthermore, other possible sources of revenue were investigated to increase the profitability, viability and sustainability of the company. The most viable source of revenue appears to be the transportation of staff members and employees of other tourism development projects in the Dead Sea.

2. VISION, MISSION & OBJECTIVES

In developing the operational and financial model, numerous interviews and meetings were carried out with various stakeholders to investigate the “burning platform” for establishing the company. The concept of a shared transportation company was greatly supported by the large majority of owners and operators of tourism projects in the Dead Sea but was rejected by one hotel operator who apprehended the idea of mixing and allowing interaction between the employees of the different hotels.

2.1 Strategic Benefits

Stakeholders identified the following strategic benefits from establishing the company;

- Benefit from economies of scale by congregating the employees of the different hotels in the Dead Sea
- Allow the hotels to outsource their transportation activities to a specialized company whereby hotels do not have the competence to provide a specialized service.
- Be able to outreach employees residing in far away towns and villages that can not be reached by individual hotels
- Provide hotels with the possibility of using hotels’ fleets for other purposes than transporting hotels’ employees

2.2 Values, Mission and Vision

- **Core values:**

The company’s values aim at providing a safe, reliable and excellent transportation as an enabler to more satisfied employees.

Excellence: ensure innovation and continuous improvement to achieve excellence

Safety: maintain high safety standards and monitor safety related issues

Comfort: satisfy hotels employees by providing them with modern buses that accommodate their different needs

Reliability: maintain punctuality, ensure high quality of the bus journeys and provide the largest majority of employees with accessibility to the transportation services

Accountability: ensure the effectiveness of the transportation system and be accountable to its stakeholders

- **Mission:**

To safely, reliably and comfortably transport hotels’ employees from and to the Dead Sea using modern vehicles

This mission clearly reflects the Raison d’être of the company, which is to benefit both the employees and the hotels owners/operators. The hotels would benefit from reduced transportation costs while employees would benefit from lower out-of pocket transportation expenses and reduced time en-route.

- **Vision**

To become the finest employees transportation company in the Dead Sea

The company vision refers to the company's immaculate safety record of accomplishment, provision of the most reliable routes and schedules, and the maintenance of a level of comfort that would be accredited by employees.

2.3 Strategic Objectives

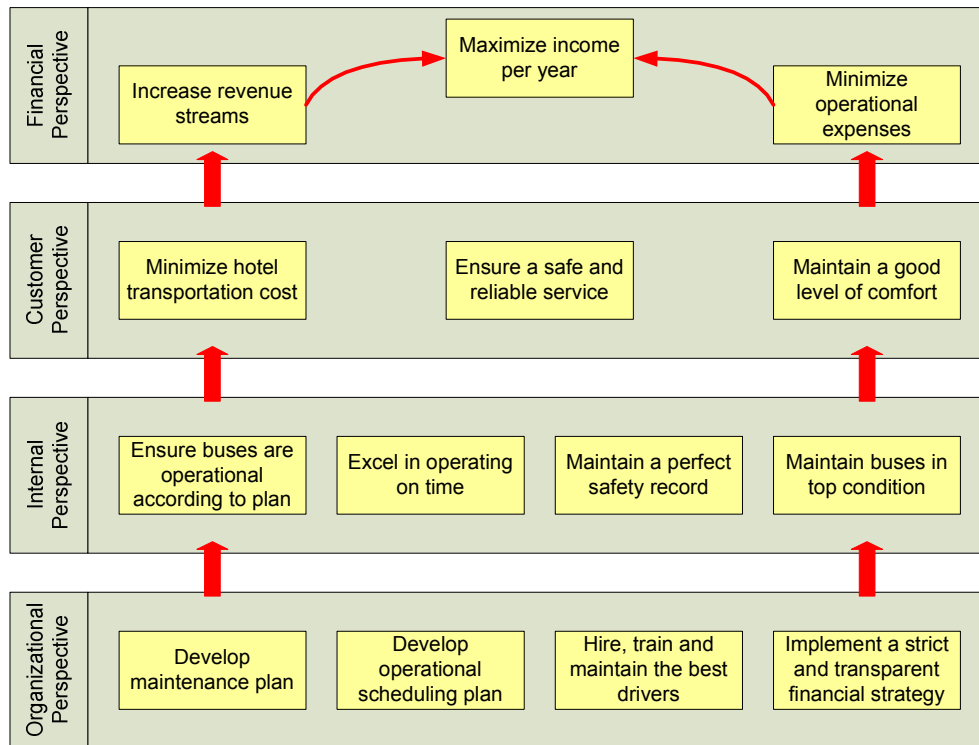
The company strategy will consist on realizing its Strategic Essence by achieving the strategic objectives identified by the Strategy Map³. The latter reflects the four operational perspectives of the company namely;

- the financial perspective
- the customer perspective
- the internal perspective
- the organizational perspective

The identification of the strategic objectives will help the company's management elaborate its operational plan by translating each objective into an action plan.

³ The rationale of the strategy Map stems from the internationally acclaimed best practice of the Balanced Scorecard, which articulates the strategy and develops an operational system, which is beyond the scope of this project.

Table 3: Strategy Map



- **The financial perspective:**

Reflects the financial expectations of the shareholders and answers the question;

“what are the financial outcomes that are articulated by the shareholders”?

- **The customer perspective**

Reflects the requirements of the customers of the company and answers the question;

“what are the customers’ needs that should be met to realize the financial requirements”?

- **The internal perspective:**

Reflects the internal business processes which consist of the company’s operations. It answers the following question;

“What business processes and operations should the company excel in to be able to serve its customers and meet its financial requirements;”?

- **The organizational perspective**

Reflects the policies, procedures, systems and HR development that the company needs to adopt to excel in its operations. This perspective would answer the following question;

“What organizational capitals (Human, informational, and technological) must be developed to realize the operational excellence”?

Accordingly, the Strategy Map identifies the company’s objectives and links them together by demonstrating the cause and effect relationship. In other terms, the map identifies the organizational requirements that need to be developed for the company to excel in its

operations and meet its customer needs. This in turn would help the company meet the financial objectives of its owners and eventually, achieve its overall vision.

Table 4: Explanation of the Strategic Objectives

Explanation of the Strategic Objectives	
Objective	Explanation
Maximize income per year	The company will ensure its financial and fiscal sustainability by maximizing its annual income. The latter will be generated through the introduction of new revenues streams, a minimization of operational expenses.
Increase revenue streams	The company will continuously identify new revenue streams. Provided that the company's main customers are its owners, it will target new customers who will have vested interests to use its services at a premium.
Minimize operational expenses	The company shall ensure that it is operating at a maximum efficiency and effectiveness to ensure that the operational expenses are minimized.
Minimize hotel transportation cost	This objective goes back to the essence of the strategic justification of the company and reflects one of the main strategic objectives of the hotels. Accordingly, the company will seek to minimize the hotels' overall transportation costs and ensure its economic viability.
Ensure a safe and reliable service	This strategic objective reflects the needs and requirement of the hotels and the employees.
Maintain a good level of comfort	This strategic objective reflects the requirements of the employees who will be using the buses. The employees will attribute a great importance to the reliability and accuracy of the schedules along with the level of comfort in the buses.
Ensure buses are operational according to plan	This is the main strategic objective in the operational or internal perspective. The company will ensure that the buses are operational according to the scheduling plan agreed upon with the hotels.
Excel in operating on time	This represents the second business process the company must excel in. It will not only need to ensure that the buses are running on the right routes and schedules but that they are operating on time as to minimize time lags and ensure the efficiency of the operational system
Maintain a perfect safety record	The company will ensure that all of its operations, processes and equipments abide to the best industry standards as to ensure the high safety level of its operations.
Maintain buses in top condition	The company will ensure the maintenance of its services either in house or by signing service level agreements with the bus manufacturers

Develop maintenance plan	This strategic objective in the Organizational perspective reflects that the company will develop a maintenance plan and ensure that it adheres to it
Develop operational scheduling plan	One of the main strategic objectives of the company is to develop and continuously update its operational schedules as to ensure the availability of its buses on a continuous basis
Hire, train and maintain the best drivers	The company will have a solid HR strategy with an internal system reflecting HR policies and procedures. The role of the HR department will consist not only on training the bus drivers on a route that is technically difficult such as the Dead Sea road but also to keep employees motivated to remain in the company
Implement a strict and transparent financial strategy	Transparency in the company's operations and accounting procedures is pivotal for its shareholders. By implementing this objective, the company will operate according to good governance and in a transparent manner for the benefit of all owners.

The above strategic objectives are to be used as a guideline and each of them will need to be further developed into action plans once the company is operational.

On the other hand, it is prudent to mention that the current study shall concentrate on the operational hotels and the number of employees they have in addition to offering scenarios to reflect the expected growth and increase in services and products offerings.

3. CURRENT OPERATIONAL MODEL

The methodology adopted to profile the commuting behaviors of hotels employees was based on interviews conducted with the top management of operational hotels along with questionnaires provided to Human Resources practitioners and employees.

This section will profile the current operational status of the existing hotels by identifying the following;

- The number of employees currently using the hotels' buses and those using the public transportation (as either a complementary or a replacement service)
- The employees' place of residence and main destinations
- The overall time it takes the employees to reach their destination
- The number of buses and available number of seats
- The total operational cost per employee

3.1 Bus Fleets

Currently, each hotel is operating an independent fleet with full administrative and technical support integrated into the hotel organizational structure. Table 5 below reflects the aggregated number of buses available (or to be acquired) at the Jordan Valley Marriott Resort & Spa, the Dead Sea Marriott hotel, the Movenpick Resort & Spa Dead Sea, the Kempinski Hotel Ishtar Dead Sea, the Dead Sea Spa Hotel and the King Abdullah Convention Center⁴.

Table 5: Available Fleets

	New Buses	Old Buses ⁵	Others
50 Passengers Buses	3	2	<ul style="list-style-type: none"> • 2 new buses to be acquired • 1 rented
23 Passenger Buses	13	2	
27 Passenger Buses	1		2 new buses to be acquired

Source : USAID Jordan Economic Development Program (SABEQ)

It is to note that the 23 passenger buses are mainly Toyota or Mitsubishi while the 48 passenger buses are mainly supplied from the local Elba House. The following table provides an estimation of the average price per bus;

Table 6: Average Price per Bus

Average Price of bus (by Brand)			
	Mitsubishi/Toyota	Elba House	Chinese Brand
50 Passengers Buses		JD 105,000- JD 140,000	JD 80,000
23 Passenger Buses with comfort (Air conditioning and curtains) and safety packages (ABS Breaking) (JD 46,000- JD 47,000		
27 Passenger Buses	JD 49,000-JD 51,000		

⁴ Information were obtained based on interviews with the mentioned hotels

⁵ Old buses are mostly 2 year old buses

Based on further interviews with the hotels operators and owners, the following factors were identified as instrumental in the decision process to acquire a bus (in order of importance):

- Safety
- Comfort, Quality and Reliability
- Maintenance contracts and its cost

It is worth noting that the buses and equipments used by each hotel reflect the standards and requirements defined by its operator.

3.2 Employees Profile & Average Transportation Costs

3.2.1 Employees Profile

▪ Breakdown by gender

The aggregated number of employees working in the operational hotels totaled 1,706 employees of which 90% are males. The female workers constitute a small share of the Dead Sea hotels workforce which is attributed, according to hotel managers, to the social factor rather than transportation related issues.

Women working away from home are negatively perceived and this constitutes a major impediment against their ability to work in the Dead Sea Hotels.

▪ Breakdown by position

Of the total number of employees, 2% are in the top management positions while 7% are in the middle management position as per the table below;

Table 7: Breakdown of the number of employees by position

Indicators	Percentage
Percentage of staff in Top Management positions	2%
Percentage of staff in Mid Management positions	7%
Percentage of staff in operational positions	91%

▪ Number of Employees using hotels buses

Of the total number of employees, 86% use the hotels buses to commute from the hotels to their place of residence;

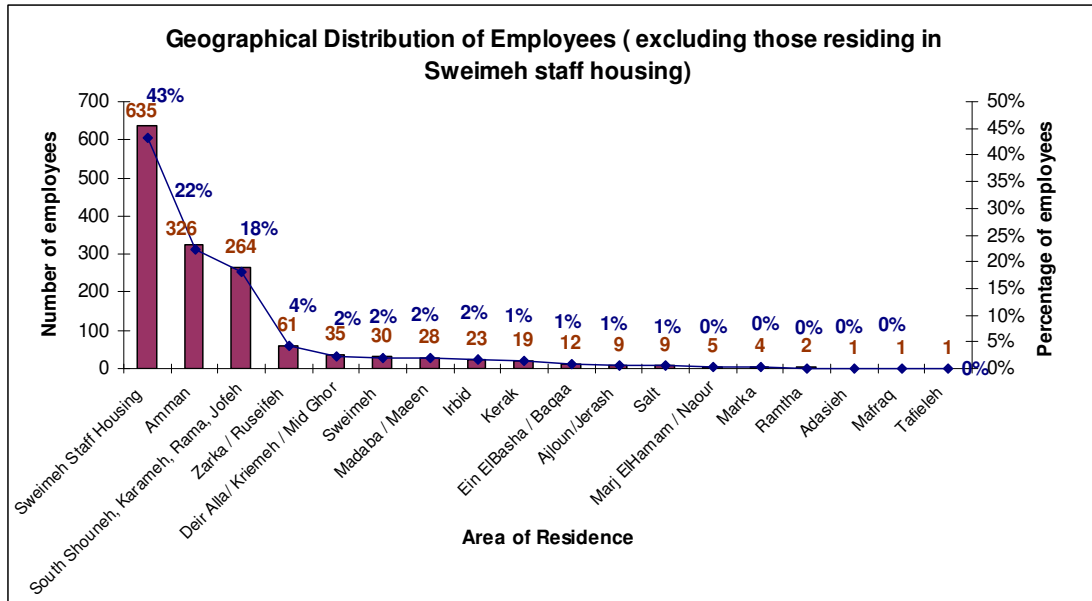
Table 8: Number of employees using hotels' buses

Indicator	Number
Approximate total Number of employees	1,706
Approximate number of employees using the hotels' buses	1,465
Percentage of males using hotel buses	98%

▪ Breakdown of Employees by Area of Residence

As per the Figure 1 below, the geographical distribution of employees, according to their place of residence, not including those residing in the Kempinski and the Movenpick staff housings in Sweimeh, reveals that over 39% of employees come from Amman while 32% come from South Shouneh (South Shouneh, Rawdah, Rama, and Karameh). This indicates that a substantial number of employees working in the Dead Sea hotels reside in the neighboring communities.

Figure 1: Geographical Distribution of Employees (excluding those residing in Sweimeh Staff Housing)



The breakdown of number of employees by geographical area, taking into account the number of employees residing in Sweimeh staff housing is further highlighted in the graph below;

Figure 2: Geographical Distribution of Employees (including those residing in Sweimeh Staff housing)

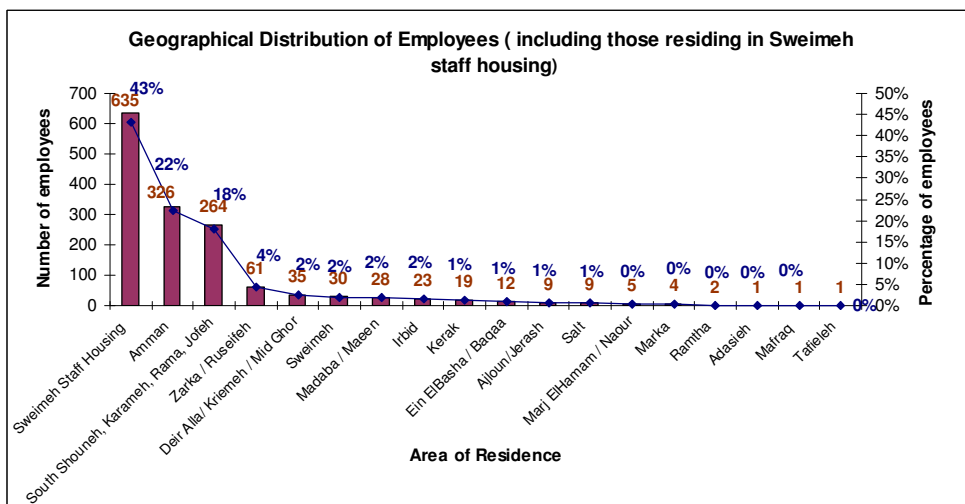


Table 9 below provides an overview of the average (one way) distances between the hotels area in the Dead Sea and the employees' areas of residence;

Table 9: Average Distances between the employees' areas of residence & the Dead Sea Hotels

Town	Direct ONE-WAY Distance (Km)
Sweimeh	7
Kafrain	20
Rama / Jofeh / Karamah	30
Madabah / Maeen	35
Amman Raghadan	58
Amman 7th circle	50
Deir Alla	54
Ghor Mazra'a	55
Kerak	80
Zarqa	80

3.2.2 Transportation costs

- **The average transportation costs Incurred by hotels**

Transportation costs incurred by hotels to commute their employees from and to the buses' main hubs have been identified as per the three main categories below;

Table 10: Average transportation costs per employee

Average monthly transportation costs per employee borne by hotels	Monthly Cost (JD)
Costs incurred by hotels whose employees reside in the Sweimeh staff housing	13-15
Costs incurred by hotels whose employees predominantly reside in the Sweimeh staff housing	25-30
Costs incurred by hotels whose employees do not reside in the staff housing	50-55

▪ **Average monthly transportation costs incurred by employees**

Some employees have to bear additional transportation costs either to commute to and from the main hubs of the hotels' buses to their place of residence or to use alternative transportation means.

Table 11: Additional Aggregated Monthly Transportation Costs borne by employees

Employees additional Aggregated Monthly Transportation Costs	Average Costs (JDs)
Additional costs incurred by employees who use their own cars to commute from and to the hotels	6,000
Costs incurred by employees using other or additional transportation means to that provided by hotels	12,000
Total	18,000

Buses have fixed routes to reach the general hubs from which employees have to seek public transportation to reach their residences⁶. For geographical areas that are beyond the route of the hotel, employees are forced to use the public transportation at their own expenses. This constitutes a time and cost burden on them (due to the time required to reach their houses) reflecting stress factors that contribute negatively to the work stability and motivation.

To better assess the costs borne by these employees, an analysis of the geographical location of their residences, actual transportation costs and travel time was conducted based on the survey findings and summarized in the table below;

⁶ Based on a study funded by the USAID Jordan Economic Development Program (SABEQ) and developed by Structure Consulting to conduct a transportation model for QIZ, it was identified that the public transportation can consume up to 30% of the income of Jordanian employees

Table 12: Transportation incurred by employees to commute beyond the main bus hubs

City/Town	Extra cost for one way to get home (JD/month)	Extra one way time to get home (minutes)	Total one way transportation time per day (minutes)
Sweimeh	0	0	10
Rama / Jofeh	0	0	25
Karamah / South Shouneh	0	0	25
Madabah / Maeen	50	60	150
Deir Alla	90	30	120
Kerak	35	60	120
Zarqa	30	60	150

3.3 Buses Current Operational windows

The operational windows identifies open opportunities for utilizing the buses in off peak times and assesses inefficiencies that would require more buses to operate. Stemming from the reality that the current number of buses is sufficient to cater the needs of each individual hotel, the identification of open windows will allow for a better use of the buses as to reduce costs and maximize revenue without encroaching on the operational windows of the hotels. The open windows would also lead to increasing the bus utilization ratio by reflecting times where the hotels could operate in a staggered shift format where enough time would be left open so that the same bus is able to make more than one trip. The following graphs (Figures 3-6) were developed to reflect the operational windows during which time the buses are busy.

3.3.1 Current schedule for the 23 passengers Buses

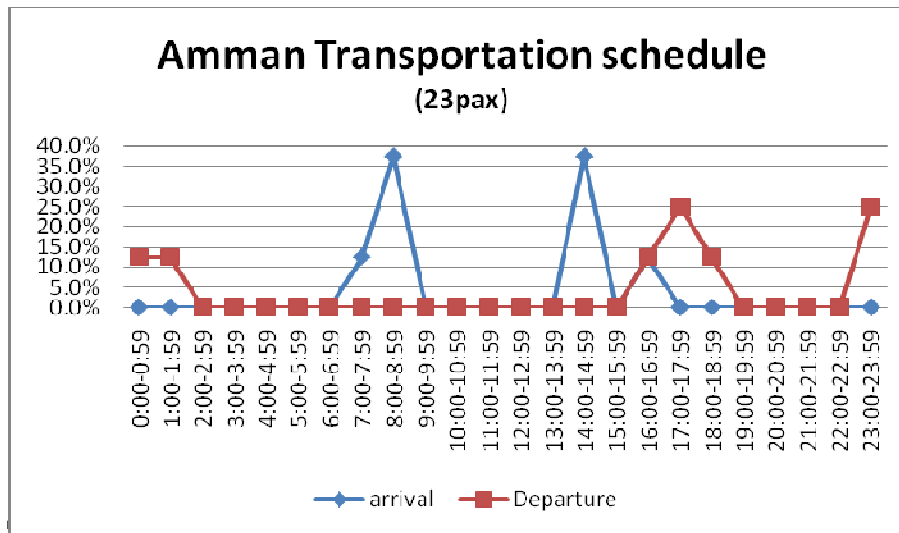
▪ Buses operating on the Amman-Dead Sea Route

Figure “3” below shows the peak and relaxed times in the schedule of the 23 passenger buses operating between Amman and the Dead Sea. There are 3 evident peaks for commuting employees from Amman to the Dead Sea;

- 7:00 and 9:00
- 14:00 & 15:00
- 16:00 & 17:00

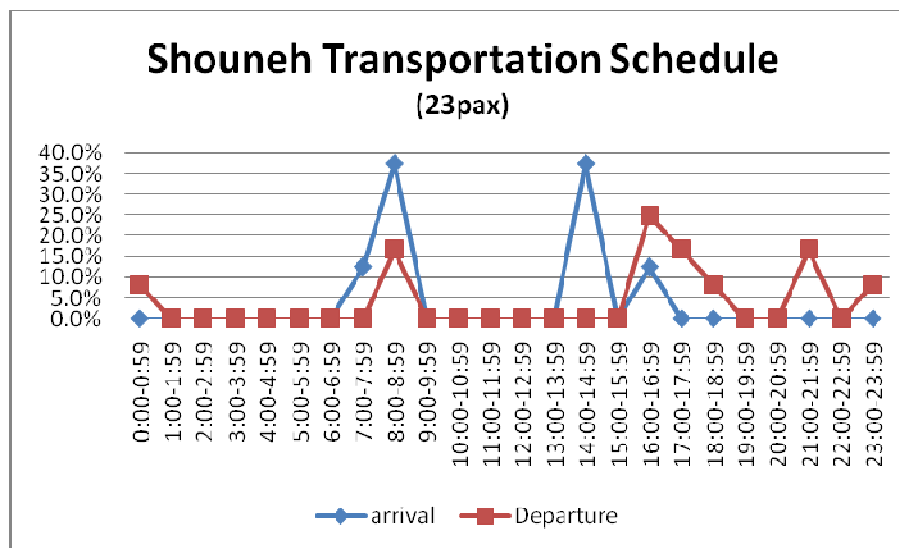
On the departure side, the peaks are less evident but longer as they span between 16:00 and 19:00 and again between 23:00 – 02:00. The departure trips are overlapping with the arrival as the arrival of one shift is directly linked to its departure 8 to 9 hours later.

Figure 3: Amman transportation schedule for the 23 passenger buses



Based on an assessment of the South Shouneh schedule for the same buses, it can be observed that due to the proximity of South Shouneh, there are more frequent trips to the area and hence there are less windows for better fleet utilization.

Figure 4: Shouneh existing Transportation Schedule



As per the above schedule, it is evident that there are 3 peaks in the morning for employees arriving from the Shouneh area to the hotels. These are as follows;

- From 07:00 to 9:00
- between 14:00 and 15:00
- between 16:00 and 17:00.

On the departure from the hotels back to Shouneh the peaks are;

- from 8:00 to 9:00 taking the night shift back home
- between 16:00 and 19:00

- between 21:00 and 22:00
- Between 23:00 and 00:00.

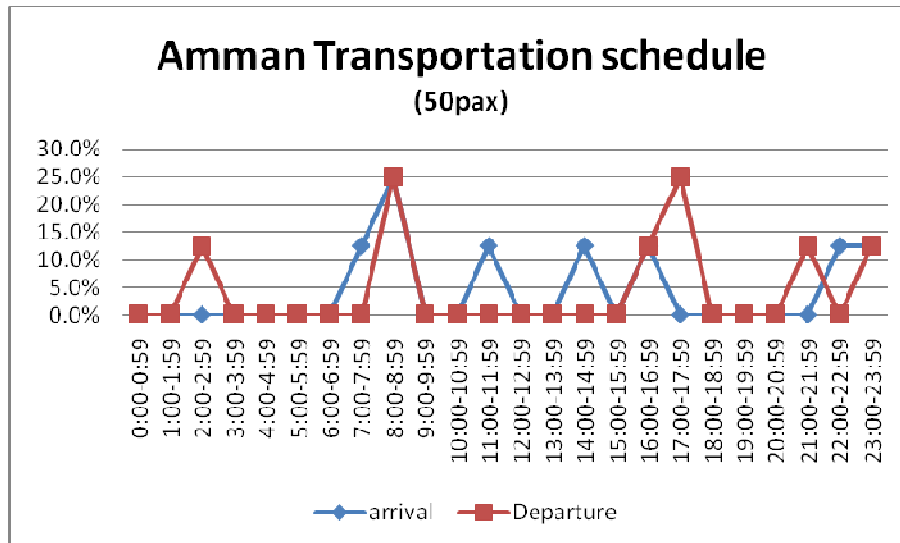
Based on the above two figures, it is evident that the peak times for arrival and departure are identical between Shouneh and Amman with a little more utilization in the Shouneh schedule. This, in essence, means that the buses cannot be better utilized in the current state of operation for the 23 passenger buses.

3.3.2 Current schedule for the 23 passengers Buses

▪ Buses operating on the Amman-Dead Sea Route

In Figure “5” below, the schedule for the 50 passenger on the Amman route, is highlighted. It is evident that there are smaller amplitude peaks for the arrival to the Dead Sea from Amman. This in essence signals better bus utilization since the bus keeps on running errands bringing employees according to their shifts. The departure is consistent with the trend for the 23 bus schedules.

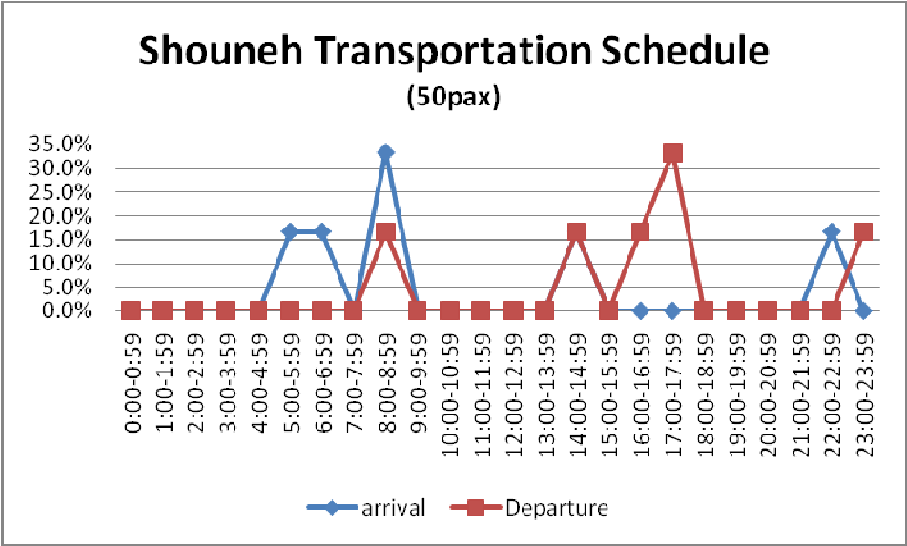
Figure 5: Amman transportation schedule for the 50 passenger buses



▪ Buses operating on the South Shouneh Schedule

The utilization of the Shouneh route schedule is not optimized compared to the one for Amman. This is understandable especially, that the 23 passenger buses are better utilized. However, it is obvious that the time interval between 8:00 and 9:00 still represents the major time interval during which employees arrive to the hotels.

Figure 6: South Shouneh transportation schedule for the 50 passenger buses



These figures clearly indicate that if a single bus company is to operate in conformance with its Strategic Essence, then possible staggering of start and end time of shifts could be recommended so that better utilization of buses is established.

4. SWOT ANALYSIS

The environmental analysis investigates the internal and external environments by identifying Strength, Weakness, Opportunity and Threat (SWOT) of the company.

STRENGTH FACTORS:

- Transportation will be run by a company whose core competence is transportation
- The company will benefit from the economy of scale to run more efficient services and reduce cost
- Routes and schedules will be dedicated to transport hotels employees as opposed to public transportation
- The company can capitalize on the safety, quality and reliability of the existing buses and on the hotels' trained staff and drivers
- Quality of the transportation will be improved in comparison to the public transportation
- The company can capitalize on the routes and times which will be set based on the company's requirements and can be modified according to the hotels' needs along with the operational fleet and resources that will be tailored to hotel staff and culture
- Reduced overall transportation costs
- Existing bus fleets can be used by the Dead Sea Transportation Company to meet the needs of the existing hotels

WEAKNESS FACTORS:

- Schedules are not equally segregated to increase bus utilization

OPPORTUNITIES FACTORS:

- The company will be able to capitalize on the market growth potential given the large number of new tourism development projects that are to be established in the Dead Sea Area within the next 7 to 8 years. This would entail the need to transport over 3,000 people on a daily basis
- Public transportation does not have the capacity nor the operations to cover the needs of the hotels
- Depreciation of the buses over a 5 year period would reflect the hotels' interests in maintaining higher bus standards.
- The company will be able to leapfrog any potential competition being the first transportation company to be established and service the Dead Sea Area.
- A large potential remains for the company to tap into new target markets and generate new revenue streams. These opportunities subsist in the following markets;
 - Leasing specific buses to construction companies operating in the area

- Leasing buses to hotels who will not have shareholding stake in the company
- Rates would be competitive due to the fact that most of the fixed costs are handled by hotels currently using the buses
- Buses will be acquired based on the needs of the hotels and accordingly, the company will not have a large inventory of unused buses that need to be operated.
- The company will remain a small company as it will be formed by the current operators. This allows it to provide a more tailored service thus forging the company's brand identity.

THREATS FACTORS:

- Political and financial instability in the country resulting in the withdrawal of large investments
- Competitors' possible interests in establishing a transportation company
- Sustainable financial backing especially at the early stages

5. OPERATIONAL MODEL

Based on the company vision, the operational model was developed to identify the routes, number of buses, schedules and investments required to maximize the efficiency of the company's operations. The model was developed based on the current demand but could be further expanded to include new partners and accommodate future demand. In the latter case, the company will acquire additional buses to optimize its operational efficiency and achieve the economy of scale.

5.1 Current Demand

The size of demand was estimated based on the needs of the operational hotels (i.e. Jordan Valley Marriott Resort & Spa, Dead Sea Marriott hotel, Movenpick Resort & Spa Dead Sea, Kempinski Hotel Ishtar Dead Sea, Dead Sea Spa Hotel and the King Abdullah Convention Center).

Table 13: Number of Employees per area of residence including those residing in Sweimeh Staff Housing

Area of Residence	Number of employees	Percentage
Hotel Housing in Sweimeh, Shouneh	635	43.3%
Amman	326	22.3%
South Shouneh, Karameh, Rama, Jofeh	264	18.0%
Zarka / Ruseifeh	61	4.2%
Deir Alla/ Kriemeh / Mid Ghor	35	2.4%
Sweimeh	30	2.0%
Madaba / Maeen	28	1.9%
Irbid	23	1.6%
Kerak	19	1.3%
Ein ElBasha / Baqaa	12	0.8%
Ajloun/Jerash	9	0.6%
Salt	9	0.6%
Marj ElHamam / Naour	5	0.3%
Marka	4	0.3%
Ramtha	2	0.1%
Adasieh	1	0.1%
Mafrq	1	0.1%
Tafieleh	1	0.1%
TOTAL	1,465	100.0%

5.2 Routes

For the purpose of this study, the currently designed routes are assumed to be the optimized routing destination that will constitute the basis of the operational model. Any future expansion will entail an allocation of additional buses.

Moreover, and to ensure an efficient utilization of the buses, a number of locations would need to congregate at predefined hubs. These hubs would cater for employees coming from neighboring or even farther areas as it would not be cost efficient for the company to

outreach these areas given the low number of employees to be targeted and the long distances. Accordingly, table 14 below shows these hubs and the number of employees it serves.

Table 14 : Collection Hubs, the areas it serves and total number of employees per hub

Hub	Areas served							Total Number of employees
Sweileh	Irbid	Ein El Basha / Baqaa	Jerash / Ajloun	Salt				23
Raghadan 1	8th Circle	7th circle	4th circle	Abdali	Raghada n / Muhatta			312
Raghadan 2	Adasieh	Marj El-Hamam / Naour	8th circle	7th circle	4th circle	Tabarbour	Raghadan / Muhatta	
Ras El-Ein	Ras - El Ein							50
Zarqa	Zarqa / Ruseifeh	Marka	Mafrag	Ramtha				68
Madaba	Madaba / Maeen	Sweimeh						45
Deir Alla	Sweimeh	Deir Alla	Kraimeh	Mid Ghor				45
Mazra'a	Mazra'a	Kerak	Tafeileh					20
Staff Housing	Joufeh / Rawdah	Sweimeh						635
South Shouneh	Karameh	Joufeh / Rawdah	Sweimeh	South Shouneh				267
TOTAL								1,465

The above routes have been identified to provide a direct route and destination for each area rather than having the buses stop at the different hubs to get to Amman. This model identifies a start and stop points that provide the buses with clear directions which will improve the travel time and minimize time – en- route for all destinations.

Accordingly and based on the destination hubs defined in Table 14 above, the routes will be named as follows;

- Sweileh, Raghadan 1 & 2
- Ras El-Ein
- Zarqa
- Madaba
- Deir Alla
- Mazra'a
- Staff Housing
- South Shouneh.

As illustration to the above, it could be stated that employees residing in Kraimeh will opt for the Deir Alla bus while those residing in Marka will use the services of the Zarqa bus etc ...

The main dispersion hub in Amman will remain Raghadan. The route has predefined stops, as indicated in Table 15 below, which will be used in this study for reference only. These could be improved, once the model is fully operational, based on real-life operational experience.

It is to note that the Raghadan route currently used does not represent the most direct route. Based on real-time operation, the back route to Raghadan, from East Amman via Madaba Street, to Yarmouk Street and Al-Nasha intersection directly to Raghadan, would be a shorter distance and a more suitable route to commute employees through East Amman. This route is recommended but again is subject to the preferences of the hotels.

The route through Madaba Street and the Hizam Road would constitute a more direct one but may not be recommended due to the high truck and trailer traffic that could pose safety issues. The Zarqa route, on the other hand, presents some issues to get to Amman.

Table 15⁷: Routes stops and total distances

Hub	Stops along the routes							One – way Total distance (Km)
Sweileh	Adasieh	8th circle	Sweileh					59
Raghadan 1	8th Circle	7th circle	4th circle	Abdali	Raghadan / Muhatta			64
Raghadan 2	Naour	Marj El-Hamam	8th circle	7th circle	4th circle	Tabarbour	Raghadan / Muhatta	70
Ras El-Ein	Ras - El Ein							55
Zarqa	Marka bridge	Zarqa						80
Madaba	Sweimeh	Madaba						40
Deir Alla	Sweimeh	Deir Alla	Mid Ghor	Kraimeh				65
Mazra'a	Mazra'a							55
Staff Housing	Sweimeh	Rawdah	Joufeh					7/20
South Shouneh	Sweimeh	Joufeh	Rawdah	South Shouneh	Karamah			35

Based on the indicative driving speeds, data supplied by hotels and the above tables, the time-en-route were identified as per table 16 below. The latter will constitute the main reference for determining the number of buses required for each route and identifying the possibility of sharing buses with routes depending on the overall utilization of the buses. Accordingly, it is anticipated that the utilization of the hotels' current bus fleets would be optimized to reflect a more economically feasible operational model that can be adopted by

⁷ The routes have been identified based on data provided by hotels and other sources

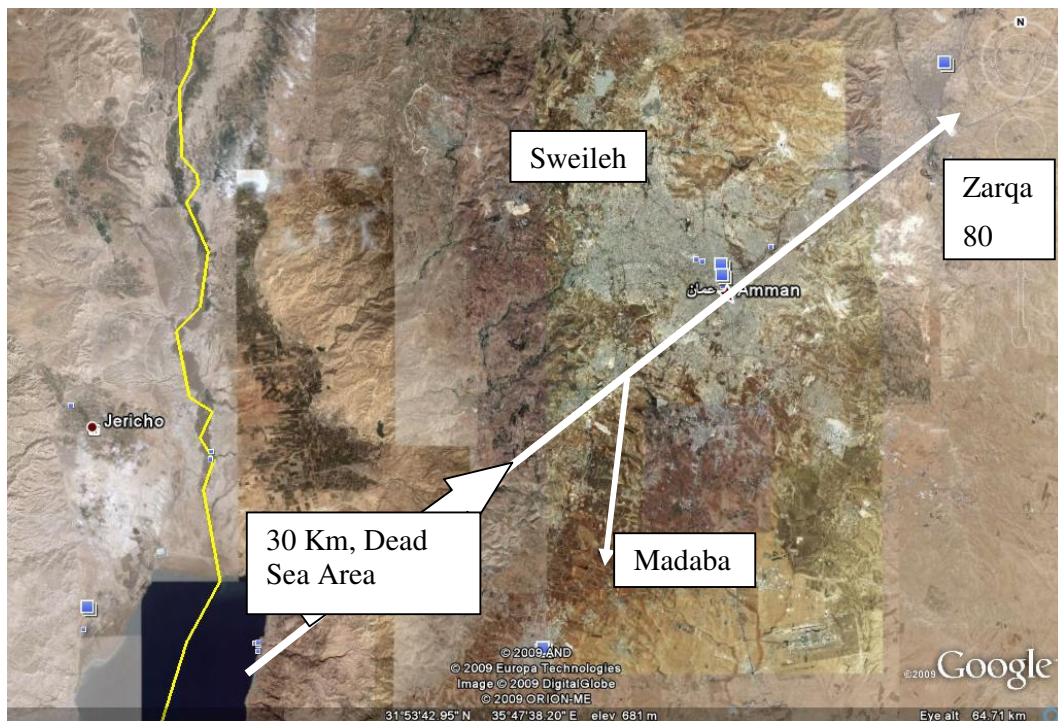
the hotels. The additional available buses would and could be used for other hotel operations.

Table 16: Time-en-route

Hub	Time-en-route (h:mm) (one-way/two way)	Overall distance (Km)
Sweileh	1:00 / 2:00	59 / 18
Raghadan 1	1:30 / 3:00	64 / 128
Raghadan 2	1:45 / 3:30	70 / 140
Ras El-Ein	1:30 / 3:00	55 / 110
Zarga	1:45 / 3:30	80 / 160
Madaba	1:15 / 2:30	40 / 80
Deir Alla	1:30 / 3:00	65 / 130
Mazra'a	0:50 / 1:40	55 / 110
Staff Housing / Sweimeh	0:15 / 0:30	7 / 14
Staff Housing / Joufeh	0:25 / 0:50	20 / 40
South Shouneh	1:15 / 2:30	35 / 70

It is to note that employees residing beyond these hubs will have to utilize the public transportation from the bus hub to their area of residence. This will constitute the main underlying assumption of the proposed operational model as the distances from the Dead Sea area are not conducive to further distance validation. Figure “7” below shows the different areas and their relative distances indicating that the first 30 Km from the Hotels Area in the Dead Sea is a “dead area” in terms of distance for those residing in Amman and beyond.

Figure 7: Distance from the Hotel's area in the Dead Sea



5.3 SCHEDULES

In the existing operational model, the buses have long idle hours. The proposed operational model aims at improving this inefficiency by optimizing the feasibility of the model.

To achieve this, the expected number of buses and the operational schedules will be developed based on the number of employees, their operations shifts and routes and data developed in tables 13, 14 and 15.

Furthermore, it is anticipated that hotels would stagger their shifts in a manner that will maximize the utilization of their buses and thus enhance their efficiency. This will need to be investigated upon the completion of the study and will depend on the malleability of the hotels. Usually, the issue of staggering is not an easy matter to address as hotels are committed to their schedules due to numerous considerations most notable of which are the expected arrival and departure times of clients and the fixed dining schedules which are hotel-non specific but rather more or less an international standard.

In analyzing the hotels bus schedules, it is evident that there are very few variations with regards the actual shift arrival/start time for each hotel. The variation is 15 minutes in most cases and will need to be improved so that the shift start times will more or less be identical. This should be applied, at least for the following zones;

- the Amman and Ghor zones; zones during which the buses leave to Amman, Madaba and other destinations
- Ghor and Shouneh zones the destinations.

Based on the above assumption and the aforementioned data, the following schedule was developed;

▪ **Amman/ Madaba Zone Schedule**

Table 17: Amman/Madaba Zone schedule (arrival time at hotels' hub) and number of employees transported per zone

Hub	7:00	8:00	10:45	11:45	14:30	16:30	16:45	17:30	21:15	23:00	0:00	2:15	8:30
Sweileh		23						23					
Raghadan 1	23	73		50	73	23	50	73	50	50	23	50	
Raghadan 2	50	73			23	23	50	73		50	23	23	
Ras El-Ein		25			25								
Zarqa					23					23			23
Madaba		23			22								

As evident from the above schedule and taking into consideration, the time-en-route highlighted in table 16, it can be concluded that the number of buses required to transport employees to the above hubs (as per table 14) shall be;

- **six 23-passenger buses**
- **four 50-passenger buses.**

Moreover, the area shaded in light blue –representing the number of staff transported between 7:00 and 14:30 arrival times- reflects the maximum number of staff present at one time at the hotel. Additionally the bold bordered areas are the time zones during which buses cannot be shared. Accordingly, the total number of buses required to transport employees will be determined based on the number of buses needed during the time zones that are delimited by the bold bordered areas in the table 17 above. In that case the number of buses needed will be as mentioned earlier, 6X23 passengers and 4X50 passengers. Moreover, it is recommended that an extra 50-passenger and an extra 23-passenger are allocated for safety and reliability precautions.

▪ **Shouneh Zone Schedule**

The table below reflects the timetable and schedules for the passengers going to Shouneh

Table 18: Shouneh Zone Schedule (times at Hotel Hub)

Hub	5:15	6:45	8:00	11:45	14:15	14:45	16:15	17:30	21:15	23:00	23:45	8:30
Deir Alla			23			23						
Mazra'a			23					23				
Staff Housing / Sweimeh		138	138		138	138			138	138		
Staff Housing / Joufeh	23	23	23	23	23	23	23	23	23	23	23	
South Shouneh	23	73	100	23	50	23	73	73	23	73	23	23

From the above table, it is clear that the need can be fulfilled by:

- **eight 23-passenger buses**
- **two 50-passenger buses.**

Moreover, the 50-passenger buses can be used by the Amman Route with the possible need for one extra bus for emergency purposes in case the real time agenda did not apply.

▪ **Total Number of Buses**

The total number of buses required to operate the model will be;

- **fifteen 23 passenger buses**
- **five 50 passenger buses**

in addition to the availability of one bus for VIP and airport shuttling as per the table below;

Table 19: Number of buses required to meet the needs of operational hotels

Zone	23 passenger	50 passenger
Amman / Madaba	6	4
Shouneh	8	2 shared with Amman
Extra bus for contingency	1	1
TOTAL	15	5

Therefore, and as per the above, it can be stated that under the proposed operational model, the existing hotels in the Dead Sea will be able to use their fifteen 23 passenger and five 50 passenger buses at full capacity without the need to acquire or rent additional buses. The 2 available additional buses will be used for contingency purposes such as for VIP and airport shuttling.

6. TECHNOLOGY

Based on discussion with hotel managers, it was indicated that most of the 23 passenger buses were supplied from the local Toyota and Mistubishi dealers while the 50 passenger buses were supplied from Elba House.

An assessment of the level of technology in the buses revealed that the hotel bus specifications, which are usually determined by hotel operators, conformed with international standards of built-quality and safety specifications. Hence most of these buses have tempered safety glass, curtains, insulation and other necessary building materials such as rust proofing, painting layers and the likes. To that effect, technology is not a detrimental factor in these buses.

To ensure the implementation of high level of safety, reliability and quality standards, the Dead Sea Transportation Company will ensure that its buses will have the following minimum requirements;

- Anti-Lock Braking systems
- Air conditioning
- Heavy duty gear boxes

Additionally, buses will be required to have wheel chair entry lifts to support physically challenged staff members and GPS black box for continuous monitoring of the buses on their routes. The GPS that will be tracking the data, can be saved internally on the black box or can be transmitted real-time every few seconds or minutes as deemed necessary and can be tracked on a screen at the headquarters. This would allow monitoring the buses by checking their reliability, on-time performance and ensuring that drivers are not taking unnecessary risks by speeding while having staff on board.

It would also be recommended for the Dead Sea Transportation Company to adopt other technologies such as smart cards. The technology requires that every bus driver be equipped with a proximity handheld receiver and employees be provided with smart cards that identify them to the receiver.

At the end of every day the driver would handover the receiver to a specialized operator on a computer terminal who, in turn, would download the information.

The accounting will be handled by a central office and any cash receipts will be handled by the drivers themselves. In the future, each bus stop could be supplied with a card issuing machine to which a traveler would pay and receive a card. Receipts would be handled by the bus driver and all the operation would remain directly reliable and financially transparent.

The adoption of such technology would allow for a limited and controlled access to the bus and the establishment of more accurate and transparent accounting systems between the transportation company and the hotels, providing both parties with the ability to accurately estimate the cost per trip.

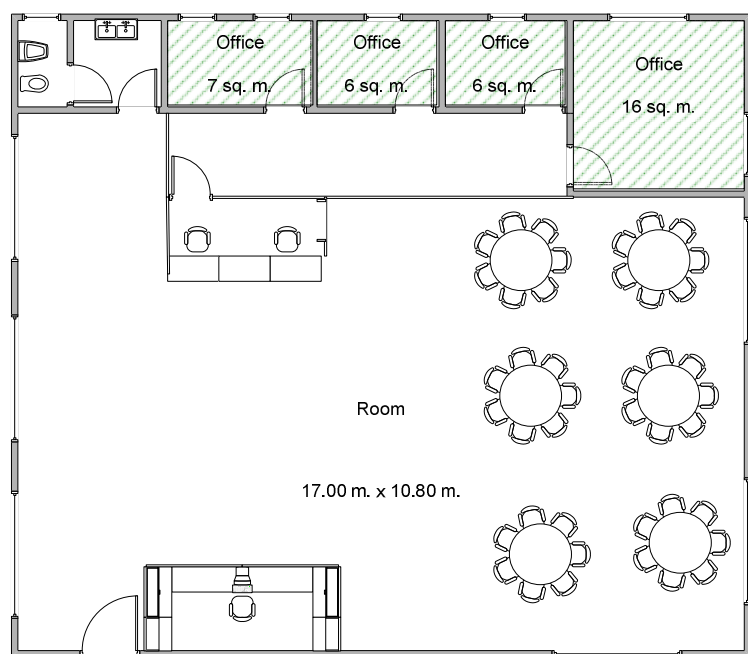
7. HUB DESIGNS AND HEADQUARTERS

The current operational transportation system does not include any official bus stops. Employees usually take their buses from the hotel car park and get off at bus stops in predetermined hubs (for example: in the 7th circle, the bus stop is located in front of Al-Burj gas station; a place that is popular for bus riders)

The design of future bus stops, will need to be approved by the Greater Amman Municipality (GAM) and would constitute an additional cost burden on the company. Therefore, it is recommended that for the first years of its inception, the company does not establish bus stops as this would require an investment of around JD 1,000 per Bus stop or more depending on the design potential⁸.

On the other hand, the law⁹ stipulates that the company should design a headquarter to house its administrative staff and provide a waiting space for its clients. This would cost the company between JD 50,000 and JD 80,000¹⁰ for the simple design of a single floor open space with basic interior decoration. The chart below provides a simple schematic of the company headquarter

Figure 8: Simple schematic for Company's Headquarters



The space for such headquarters will be around 17 m X 15 m with a total area of 255 square meters. This would allow the company to house 4 offices, one for the manager, the

⁸ According to an interview with the head of signage in GAM in 2009

⁹ Article 6 subparagraph C regulations N0104/2002

¹⁰ Based on meeting with Developer Mr.Rajae Joury, March 2009

administrator, the accounting manager and the computer data entry Staff. The head quarter would also have a dining area, a cafeteria and a reception desk. It has to be further emphasized that the headquarter will not only work for servicing hotel employees but anyone who wants to use the routes.

For the purpose of this study, it will be assumed that JD 80,000 will be invested for the establishment of the headquarter offices and 5,000 square meters of land would be allocated for the establishment of the bus station. The latter could be either located near the hotel areas on the other side of the street, or in Sweimeh. This would allow all buses to pick staff directly from the hotels and then pick other travelers from Sweimeh.

It will be assumed that the land, where the headquarter will be established, will cost a total of JD 20,000¹¹ per square meter or a total of JD 100,000 as initial land investment. This would increase the total capital investments required for the establishment of the headquarters to JD 180,000.

It is currently recommended that for the start up phase, buses are headquartered at the parking zones of one of the hotels or in between the hotels and that an 80 to 100 m² headquarters offices¹² be rented out in Sweimeh or South Shouneh for the operational aspects of the company. Rent rate could be assumed at a maximum of JD 50/m² or an annual rate of JD 4,000 a year. Other alternative would be to host the company at one of the hotels at a rate that can be agreed upon.

¹¹ Based on discussions with the owner of real estate brokerage office, Mr. Safwat Karim in September 2008, it was indicated that prior to the recent financial crisis, land prices near Al-Rama entrance were around JD 15,000 per 1,000 square meters .

¹² Based on Article 3 A of the Instructions of Registering a Transportation Leasing Company, the minimum required size for a headquarter is 40 square meters

8. LEGISLATIONS, REGISTRATIONS & GOVERNANCE STRUCTURE

8.1 Legislations for registration & operation

The operations of the Dead Sea Transportation Company could entail the following:

1. Transportation of hotel employees
2. Transportation of hotel goods to/from the hotels
3. Transportation of weekend tourists to the Hotels
4. Transportation of employees of other organizations who are not shareholders in the company through rental agreements.

The following laws, regulations and instructions were found applicable and relevant to the registration and operation of the transportation company:

1. Law No. 39 for the Year 2006 “The law on Public Transportation of passengers”
2. Regulations No. 104 for the year 2002 issued based on the Law “Regulations for licensing companies and car rental offices.
3. Instructions for the registration of transportation companies for the year 2003

These laws and regulations are clearly applicable to any transportation company (publicly or privately owned) of which are:

1. Transportation of company’s employees
2. Transportation of students, groups or families on trips
3. Transportation of Pilgrims
4. Any other transportation barring “B” below that is approved by the Board of the Public Transportation Regulatory Commission (PTRC)

It is to note that the above transportation companies are not allowed to transport tourist groups. Accordingly, the Dead Sea Transportation Company will have to be registered in compliance with these regulations since its objectives are directly congruent with those of the regulations as stipulated in Article 6 of the regulation 104/2002.

To be registered, the Company will have to adhere to the following:

- have a minimum registered capital of JD1 Million
- register, upon association, the 10 buses it owns
- maintain a location for the company’s operations and establish a proper office that includes a reception, waiting areas, necessary utilities, safety and communication equipments in addition to allocating enough space for offices for the company’s management and staff
- abide by the rules issued by the Board of the PTRC

The following regulations will also apply to the Company:

- it will not be allowed to own more than 10 buses without obtaining an approval from the Board of the PTRC
- it will be allowed to own middle sized sedan cars at the condition that the latter do not exceed double the number of buses the company owns in conformance with the applicable technical specifications
- Buses should not be older than 5 years and cars not older than 2 years from the first registration approval date

- The operational life span should not exceed 20 years for buses and 15 years for cars from the date of manufacture

Moreover, the company should have well documented archives reflecting all passenger statistics, routes, pick up and drop off locations, number of trips and any other information that may be asked for by the PTRC.

The instructions of registering a transportation leasing company were also developed and published in volume 4597 of the National Gazette dated 15 May 2003. The instructions are distributed in 8 articles as follows:

- Article 1: Nomenclature
- Article 2: Company Governance requirements
- Article 3: Company HQ requirements
- Article 4: Maintenance and overnight parking requirements
- Article 5: Driver requirements
- Article 6: Buses requirements
- Article 7: Implementation directives
- Article 8: General provisions

The following highlights regulation provisions that are of relevance to the company;

Article 2: company governance provisions

- A. The company established as a specialized transportation company should be registered in the Hashemite Kingdom of Jordan as either a Public shareholding company, a Limited Liability company or a General Partnership company as per the Company's' Law (This was published before the new Private Shareholding company was established and published in the Company's Law which is also acceptable)
- B. The general manager of the company has to be
 - A Jordanian older than 25 years
 - Has good conduct and is not judicially incriminated in any way
 - Has a University degree as a minimum

In Article 3: Company's Headquarters provisions

- A. The company Headquarters area need to be at least 40 square meters and should be housed in a commercial or industrial or similar building
- B. It has to have wireless communication with its buses
- C. It has to have a land line telephone system

Article 4: Maintenance and overnight parking provisions

- A. The company has to have overnight parking facilities that are at least 50 square meters per bus and 200 meters away from traffic light intersections or residential areas
- B. The company has to prove that it either has the capability to perform maintenance, washing and corrections to its buses or has subcontracted the work to a second party.

Article 5: Driver provisions

- A. The Driver has to be a literate Jordanian National between the ages of 25 and 60 year old.
- B. The driver should have obtained a drivers license for the specific vehicle type and has at least 2 years experience in driving it.
- C. The driver should not have a criminal record
- D. The driver's license should have been impounded more than 2 times in the last three years due to accidents with casualties
- E. The driver should allow background checks to be made on his behalf

F. The driver should attend a public safety seminar from the relevant approved clubs or educational institutions

Article 6: Bus Requirements

- A. Buses should not be older than 5 years from the year of the registration of the company
- B. The operational life span of the bus should not exceed 20 years
- C. In the presence of an air-conditioning system and closed windows, the bus should have a ventilation system with a minimum of two ceiling mounted vents and individual personal assistant vents for each passenger. The buses should also have at least 4 hammers to break windows as needed for extra ventilation.
- D. Buses should have:
 - Anti Lock Breaking systems (ABS)
 - a Tachograph to show speed
 - a first Aid Kit
 - anti skid flooring and external luggage compartments
 - a Public Announcement system (PA)
 - a moveable seat for the driver and to have the driver seat area separated from the passengers by a barrier.

In Article 7, implementation directives & penalties are mentioned

In Article 8, general provisions:

- A. Fair competition is the basis for operation in which no company is allowed to price cut or issue false marketing of services
- B. All company employees must be included in the Social security
- C. All employees will have to be legally contracted in accordance with the Labor Law
- D. The company has to provide uniforms to its drivers and workers
- E. The company has to pay a performance bond of JD 10,000 to the PTRC which will be used in case of any infringement as stipulated in Article 7 of these instructions
- F. The buses should not be held as collateral to any bank other than the bank used to purchase them without the prior approval of PTRC
- G. No new partner is allowed to enter or leave the company without the prior approval of PTRC and upon the approvals of the security and AQ enforcement authorities. The same would apply to the company would it want to change its name or location

8.2 Governance Structure

8.2.1 Company form

As per the legislative instructions and regulations above, it is recommended that the Company be registered as a Private Shareholding Company where different categories of shares, differing in their nominal value, voting force and method of profit or loss distribution, can be offered. This form of company is preferred because it provides the current hotels owners the right to include new shareholders.

The General Assembly of the private shareholding company will not comprise all of the company's shareholders but would only include those who own shares that entitle them to vote (as per the company's Memorandum of Association), attend the General Assembly meetings and elect a Board of Directors who in turn will appoint the General Manager.

Moreover, this type of company is preferred as it provides further flexibility with regards to profit distribution.

Unlike the Limited Liability and Public Shareholding Companies where the percentage of share ownership determines the shareholders' stake in the company's profits, the private shareholding companies allows for the distribution of profits according to the profit each shareholder would potentially generate rather than the number of shares he holds. Furthermore, the profit distribution plan of the company can be amended, at any stage, by the General assembly of a Private Shareholding company subject to the benefit of the company.

8.2.2 Share value

For the proposed Dead Sea Transportation Company, the company's shares will therefore be valued according to the value of the buses (subject to depreciation) that the shareholding investor will contribute in as part of the company's capital. To clearly determine the company's capital, the value of the existing buses will need to be accurately estimated assuming that all transportation vehicles are depreciated over a 5 year period or an annual depreciation of 20%.

Profits, on the other hand, will be distributed according to the number of seats owned by the shareholder, which will be function of the number and size of the buses that the shareholders own as opposed to the percentage of shares he holds in the company.

8.2.3 Illustration

The following provides an example that illustrates how profits will be distributed in the company;

- Company A owns 6 buses with a total value of JD 500,000 and 250 seats capacity
- Company B owns 10 buses with a total value of JD 500,000 and 300 seats capacity

Company A and company B will be equal shareholders and each has 50% stake of the company. However, if JD 100,000 profits are generated then they will be distributed as follows:

Company A: $100,000 \times \frac{250}{550} = 4,545.5 \text{ JD (45.5\%)}$

Company B: $100,000 \times \frac{300}{550} = 5,454.5 \text{ JD (54.5\%)}$

9. ORGANIZATIONAL STRUCTURE

The organizational structure of the Dea Sea Transportation Company would be a simple structure incorporating all the positions required to run its operations. The following job titles and functional responsibilities will be needed;

9.1 Job Descriptions

9.1.1 General Manager

The general manager will run the operations of the company in accordance with the Board of Directors' directives. The scope of operations will be detailed, once the position is developed, according to the stipulations of the board in its first meeting upon incorporation.

9.1.2 Financial controller

The financial controller will be responsible for managing and controlling the financial and accounting analysis for all the company's areas of operation, which will encompass managing the financial relation with the hotels with regards to their payment procedures and correct accounting procedures as per General accepted Accounting Practice (GAAP). The financial controller will ensure that the tariffs and ticket prices are being implemented, and in the case of transporting non hotel employees, that the packages are congruent with the current legislation.

9.1.3 Technology officer

The technology officer will be responsible for the smart cards and any download of the GPS equipment. He will also be the person responsible for monitoring the scheduling and quality performance of the operation.

9.1.4 Bus Controller

This Administrator will be responsible for ensuring that all buses are operating according to plan, all maintenance contracts are being implemented and that the buses are available. The bus controller is the main operation administrator and the one who is responsible for scheduling, passenger control and any other administrative issue related to the operation.

9.1.5 Assistants and front desk

These will be responsible for the front desk manning and ticket issuing in addition to solving problems that customers may have in the front desk. He will act as the GM assistant

9.1.6 Yard Supervisor

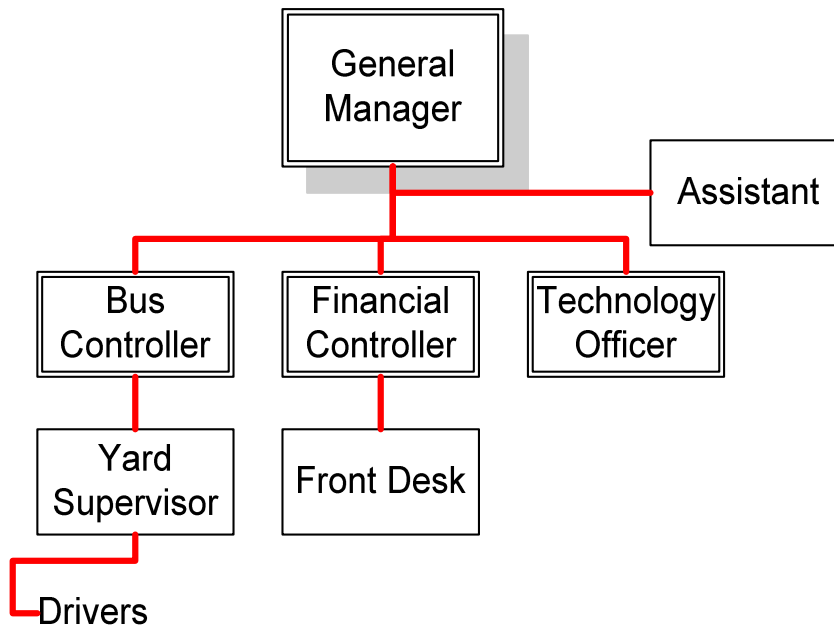
The Yard supervisor is responsible for launching the buses and maintaining a safe and obstacle free stop at the head quarter. He is also responsible for passenger safety whilst on the ground before riding on the bus. The supervisor is the main reference to all drivers and he is the organizational manager for the company in terms of who drives what bus. He is also responsible for the shift distribution and reporting to the financial controller so as the correct remuneration and overtime is paid to drivers who work the night shifts.

9.1.7 Drivers

The drivers will be the staff driving the buses as per the regulations of the company. They will report directly to the yard supervisor

9.2 Organizational Structure

Accordingly and as per the above, the following Organization chart is recommended.



The above organization structure reflects the simplest structure taking into account the dynamics of the operation in a manner that will support its growth in the future. Moreover, Table 19 below reflects the recommended salary scale, educational background and experience level.

Table 19: Staff Education, experience and salary scale

Position	Education	Experience	Salary scale
General Manager	University	5 years min	1200-1500
Financial Controller	University	5 years min	850-1050
Technology Officer	University	2 years min	500-600
Bus Controller	Diploma/University	10 years min	800-1000
Yard supervisor	Diploma max	10 years min	700-900
Assistants, front desk	Diploma	1 year min	250-350
Drivers	High school	5 years min	300-500

Moreover, as per the current operational plan, the following number of employees will be required;

Table 20: Staff Number

Position	Number
General Manager	1
Financial Controller	1
Technology Officer	1
Bus Controller	1
Yard supervisor	1
Assistants, front desk	2
Drivers	25
TOTAL	32

10. FINANCIAL MODEL

In order to evaluate the feasibility of the proposed Dead Sea Transportation Company, the financial performance of the company was projected over a period of ten years based on two scenarios. The base case scenario assumes that the company will be established as a private shareholding company with the operational hotels¹³ in the Dead Sea being its main shareholders. The underlying assumption being that the company's operations will be mainly geared to service its shareholders.

A second scenario was developed based on the base case scenario and assuming that 3 additional tourism development projects will become shareholders in the company in year 2, 4 and 6 upon its establishment.

10.1 Base Case Scenario

The Base Scenario assumes that the transportation company will operate to service existing hotels. This scenario assumes that the current hotels will use their existing buses and will acquire new ones, once their buses have depreciated.

Under this scenario, it is assumed that hotels will pay 25% of the value of any new bus based on a pro-rata distribution of seats.

10.1.1 Assumptions

10.1.1.1 Capital Investments

Total capital investments in the first year of operations were estimated at JD 1,453,772. These mainly include the costs of the existing 22 buses and 4 new buses, software, hardware, furniture and working capital. The company's capital investments were estimated based on market surveys and price quotations obtained from vendors. A 20% depreciation was assumed for the different capital investment items. The tables below breakdown the costs by major capital investment items;

¹³ the Jordan Valley Marriott Resort & Spa, the Dead Sea Marriott hotel, the Movenpick Resort & Spa Dead Sea, the Kempinski Hotel Ishtar Dead Sea, the Dead Sea Spa Hotel and the King Abdullah Convention Center.

Table 21: Capital Investment- Existing Buses

BUSES	Quantity +extra	Price/bus including customs (JD)	Total price (JD)
New Buses			
50 pax	3	110,000	330,000
23 pax	13	47,000	611,000
Old Buses (acquired 2 years ago)			
50 pax	2	66,000	132,000
23 pax	2	28,200	56,400
Total			
Total	20		1,129,400

Under the base case scenario, the company will, throughout the first 3 years of its operations use the existing buses (i.e. the 20 buses currently owned by the operational hotels in the Dead Sea). After this, the company will acquire new buses to replace the depreciated ones.

Table 22: Projected Price per bus assuming a 3% annual increase

Projected Bus Prices (JDs)										
Size of Buses	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
50 pax	110,000	113,300	116,699	120,200	123,806	127,520	131,346	135,286	139,345	143,525
23 pax	47,000	48,410	49,862	51,358	52,899	54,486	56,120	57,804	59,538	61,324

The table below summarizes the investments required to acquire new buses over the projected 10 year period¹⁴.

Table 23: Capital Investments- Number of new buses required over the projected 10 year period

Number of Buses & Capital Investments												
		Year 0	year 1	year 2	year 3	year 4	year 5	year 6	year 7	year 8	year 9	year 10
Number of New Buses Required	50 Pax	1			2		3			2		3
	30 Pax	1			2		13			2		13
Capital investment by the company (covering 0.75% of costs)		1,157,814	0	0	249,842	0	794,328	0	0	289,635	0	920,844
Capital investment by current hotels in the company (covering 0.25% of costs)			0	0	83,281	0	264,776	0	0	96,545	0	306,948
Total Capital investments		1,157,814			333,123		1,059,104			386,180		1,227,792
Depreciation		0	256,683	256,683	260,507	260,507	284,128	284,128	284,128	294,740	294,740	328,477

¹⁴ It is assumed that all depreciated buses will have a salvage Value of JD 1

It is to note the following;

- In Year 5, the company's existing buses will be depreciated and will need to be replaced
- In year 8, four new buses will be needed as those acquired in year 3 would have depreciated
- In year 10, sixteen new buses will be needed as those acquired in year 5 would have depreciated

The Dead Sea Transportation Company is assumed to cover 75% of the costs of the newly acquired buses while hotels are assumed to fund the remaining 25%. The cost per hotel will be determined based on pro-rata distribution of seats.

Table 24: Capital Investments- Software & Hardware

Capital Investments: Software & Hardware				
Software and Hardware	Quantity	Price per unit (USD) Ex-Works	Source	Total costs including customs (JD)
Software	1	380	US/China	405
Computer to be used as server	1	2,000	Local supplier	2,130
Computers terminals	6	1,000	Local Supplier	6,390
Printers	4	450	Local Supplier	1,917
Smart Card Printers	2	1,500	US/China	3,195
Smart Cards	3,000	1.5	US/China	4,793
Handheld scanners	20	450	US/China	9,585
Total				28,414

Accordingly, total capital investments in the initial year of operations were estimated at a total of JD 1,426,772.

Table 25: Total Capital Investments in Year 0

Capital Investments (JDs) in year 0	
Existing Buses	1,129,400
Software & Hardware	28,414
Working Capital (including 6 months G&A and Running Expenses)	295,957
Total	1,453,772

10.1.1.2 General & Administrative Expenses

General & Administrative Expenses constitute management's compensation and miscellaneous expenses such as rent, utilities, supplies, marketing expenses and others.

Key Assumptions:

- **Administrative staff salaries**

Administrative Staff salaries are expected to grow at a 10% throughout the projected period.

Annual Salaries of Administrative Staff (JDs)		
Position	Number	Salaries (JDs)
General Manager	1	16,200
Financial Controller	1	11,400
Technology Officer	1	6,600
Bus Controller	1	10,800
Yard supervisor	1	9,600
Front desk assistants	2	7,200
Total	7	61,800

- **Health Insurance**

Health insurance was estimated at JD 200 per employee with an average growth rate of 5%

- **Rent**

Office rent was estimated at a JD 50/m2 based on the average market rate

General & Administrative Expenses											
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TOTAL
Administrative staff Salaries	61,800	67,980	74,778	82,256	90,481	99,530	109,482	120,431	132,474	145,721	984,933
Social security	6,798	7,478	8,226	9,048	9,953	10,948	12,043	13,247	14,572	16,029	108,343
Health Insurance	1,400	1,470	1,544	1,621	1,702	1,787	1,876	1,970	2,068	2,172	17,609
Rent	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	40,000
Utilities	240	240	240	240	240	240	240	240	240	240	2,400
Telephones	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	60,000
Office supplies	240	240	240	240	240	240	240	240	240	240	2,400
Printer supplies	500	500	500	500	500	500	500	500	500	500	5,000
Smart Card printer supplies	2,000	2,200	2,420	2,662	2,928	3,221	3,543	3,897	4,287	4,716	31,875
Marketing expenses	5,000	5,500	6,050	6,655	7,321	8,053	8,858	9,744	10,718	11,790	79,687
Miscellaneous	4,149	4,564	5,020	5,522	6,074	6,682	7,350	8,085	8,894	9,783	66,123
TOTAL	92,127	100,172	109,017	118,744	129,439	141,200	154,133	168,354	183,993	201,191	1,398,369

10.1.1.3 Running Expenses

Key Assumptions:

- **Drivers Salaries, Health Insurance and Social Security**

The projected annual salary per driver was projected at JD 4,800 with an annual growth rate of 10%.

- **Bus Maintenance, Registration and Insurance**

- Bus maintenance is assumed to total 2% of the company's capital investment and is projected to grow at a 30% annual growth rate. On the other hand, bus registration and insurance expenses were estimated at JD 2,500 per bus per year and were projected at a 2% annual growth.
- Diesel price was assumed at JD 0.4 per Liter over the projected growth period with an estimated 150,000 Km traveled per year per bus with a fuel consumption of 100 Liter per Km. The average annual Km traveled was estimated based on an approximation of the number of trips as determined by the operational model and the mileage of the trips.

The Following table depicts the forecasted running expenses of the company for the projected growth period.

Running Expenses											
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TOTAL
Driver Salaries	50,000	51,000	52,020	53,060	54,122	55,204	56,308	57,434	58,583	59,755	547,486
Social security	120,000	132,000	145,200	159,720	175,692	193,261	212,587	233,846	257,231	282,954	1,912,491
Health Insurance	13,200	14,520	15,972	17,569	19,326	21,259	23,385	25,723	28,295	31,125	210,374
Bus maintenance	4,000	4,200	4,410	4,631	4,862	5,105	5,360	5,628	5,910	6,205	50,312
Bus registration & Insurance	22,588	29,364	38,174	49,626	64,514	83,868	109,028	141,736	184,257	239,534	962,689
Fuel costs	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	2,400,000
Miscellaneous	50,000	53,000	58,300	64,130	70,543	77,597	85,357	93,893	103,282	113,610	769,712
TOTAL	499,788	524,084	554,076	588,736	629,058	676,294	732,025	798,261	877,558	973,183	6,853,064

10.1.1.4 Other Assumptions

▪ Interest Expense

It is assumed that the company will acquire a loan for partial financing of its capital investments. The total value of the loan will total JD 324,372 or 22% of the financing required and bears an interest rate of 9.5% with a payback period of 3 years. The schedule below portrays the forecasted repayment of the loan:

Loan repayment		Year 1	Year 2	Year 3
Principle		324,372	225,899	118,071
Interest	9.5%	30,815	21,460	11,217
Principle repayment		98,473	107,828	118,071
Outstanding		225,899	118,071	0

10.1.2 Projected Financial Statements

Under the base case scenario, the projected financial statements were developed assuming the following;

- the bus company will only cater the existing hotels transporting a total of 1,465 employees
- the breakeven transportation cost per employee per year will total JD 50 and will increase at an average annual growth rate of 10%.

The aforementioned transportation cost can be used as the reference costs for hotels to compare with their current expenses and develop a clear understanding of the economic benefit that the company has added to their operation.

10.1.2.1 Projected Income Statement

Private Dead Sea Transportation Company Projected Income Statement (JDs)- Base Case Scenario																			
	Year 1	Year 2	Growth	Year 3	Growth	Year 4	Growth	Year 5	Growth	Year 6	Growth	Year 7	Growth	Year 8	Growth	Year 9	Growth	Year 10	Growth
Income	879,000	966,900	10.0%	1,063,590	10.0%	1,169,949	10.0%	1,286,944	10.0%	1,415,638	10.0%	1,557,202	10.0%	1,712,922	10.0%	1,884,215	10.0%	2,072,636	10.0%
Operational Expenses	499,788	524,084	4.9%	554,076	5.7%	588,736	6.3%	629,058	6.8%	676,294	7.5%	732,025	8.2%	798,261	9.0%	877,558	9.9%	973,183	10.9%
Gross Operational Profit	379,212	442,816	16.8%	509,514	15.1%	581,213	14.1%	657,886	13.2%	739,344	12.4%	825,177	11.6%	914,661	10.8%	1,006,656	10.1%	1,099,453	9.2%
G & A expenses	92,127	100,172	8.7%	109,017	8.8%	118,744	8.9%	129,439	9.0%	141,200	9.1%	154,133	9.2%	168,354	9.2%	183,993	9.3%	201,191	9.3%
EBITDA	287,085	342,644	19.4%	400,497	16.9%	462,469	15.5%	528,446	14.3%	598,144	13.2%	671,044	12.2%	746,307	11.2%	822,663	10.2%	898,262	9.2%
Depreciation	256,683	256,683	0.0%	260,507	1.5%	260,507	0.0%	284,128	9.1%	284,128	0.0%	284,128	0.0%	294,740	3.7%	294,740	0.0%	328,477	11.4%
Loan interest Charges	30,815	21,460	-30.4%	11,217	-47.7%	0	-100.0%	0		0		0		0		0		0	
Taxable profit	-413	64,501	-15715.9%	128,773	99.6%	201,962	56.8%	244,318	21.0%	314,016	28.5%	386,916	23.2%	451,568	16.7%	527,924	16.9%	569,785	7.9%
Income tax (25%)	-103	16,125	-15715.9%	32,193	99.6%	50,490	56.8%	61,080	21.0%	78,504	28.5%	96,729	23.2%	112,892	16.7%	131,981	16.9%	142,446	7.9%
Net Profit/Loss	-310	48,376	-15715.9%	96,580	99.6%	151,471	56.8%	183,239	21.0%	235,512	28.5%	290,187	23.2%	338,676	16.7%	395,943	16.9%	427,339	7.9%
Retained earnings	-310	48,066	-15615.9%	144,645	200.9%	296,117	104.7%	479,356	61.9%	714,868	49.1%	1,005,055	40.6%	1,343,730	33.7%	1,739,673	29.5%	2,167,012	24.6%

10.1.2.2 Projected Cash Flow Statement

Private Dead Sea Transportation Company																			
Projected Cash Flow Statement (JDs)- Base Case Scenario																			
	Year 1	Year 2	Growth	Year 3*	Growth	Year 4	Growth	Year 5**	Growth	Year 6	Growth	Year 7	Growth	Year 8***	Growth	Year 9	Growth	Year 10****	Growth
Internal investment	0	0		249,842		0	-100.0%	794,328		0	-100.0%	0		289,635		0	-100.0%	920,844	
EBITDA	287,085	342,644	19.4%	400,497	16.9%	462,469	15.5%	528,446	14.3%	598,144	13.2%	671,044	12.2%	746,307	11.2%	822,663	10.2%	898,262	9.2%
Interest repayment	30,815	21,460	-30.4%	11,217	-47.7%	0	-100.0%	0		0		0	#DIV/0!	0		0		0	
Loan repayment	98,473	107,828	9.5%	118,071	9.5%	0	-100.0%	0		0		0	#DIV/0!	0		0		0	
Net cash flow	157,797	213,356	35.2%	21,367	-90.0%	462,469	2064.4%	-265,881	-157.5%	598,144	-325.0%	671,044	12.2%	456,672	-31.9%	822,663	80.1%	-22,582	-102.7%
Cumulative cash flow	157,797	371,153	135.2%	392,520	5.8%	854,989	117.8%	589,108	-31.1%	1,187,252	101.5%	1,858,296	56.5%	2,314,968	24.6%	3,137,632	35.5%	3,115,050	-0.7%

10.1.3 Feasibility Review

10.1.3.1 Net Present Value

Net Present Value (NPV) is used to evaluate the feasibility of investment projects based on the value of future cash flows discounted at the marginal costs of capital (WACC). Projects with an NPV equal to zero indicates that the project cash flows will equal to the invested capital while projects with positive NPV reflects the ability of the project to generate access cash flow.

Private Dead Sea Transportation Company											
Net Cash Flow Statement (JDs)- Base Case Scenario											
All Values in JD	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Capital investment	1,129,400	0	0	249,842	0	794,328	0	0	289,635	0	920,844
EBITDA		287,085	342,644	400,497	462,469	528,446	598,144	671,044	746,307	822,663	898,262
Interest repayment		30,815	21,460	11,217	0	0	0	0	0	0	0
Loan repayment		98,473	107,828	118,071	0	0	0	0	0	0	0
Net cash flow	-1,129,400	157,797	213,356	21,367	462,469	-265,881	598,144	671,044	456,672	822,663	-22,582

The discount rate was estimated at 13.13% based on the Weighted Average Cost of capital (WACC) for the transportation sector in Jordan and the equity/debt ratio for the project. Accordingly, and based on the above the Bus Transportation Company is expected to have an NPV of positive 294,653

10.1.3.2 Internal Rate of Return

The Internal Rate of Return (IRR) is the discount rate at which the present value of a project's cash flows is equal to the project's costs. The company's IRR was estimated at 18.53% reflecting the financial viability of the company.

10.2 Sensitivity Analysis

The sensitivity analysis examines the factors that would affect the feasibility of the operational model of the bus transportation company under the base case scenario.

The price of diesel was identified as being a high risk factor for which a sensitivity analysis was conducted to study the effect of increase in diesel fuel price on the feasibility of the operational model as per the following assumptions;

- Diesel Prices increase by 25%
- Diesel Prices increase decrease by 25%
- Diesel Prices increase by 50%
- Diesel Prices increase by 75%

The table below summarizes the findings of the sensitivity analysis and depicts the IRR of the project based on the four above scenarios;

IRR Sensitivity based on Different Fuel Prices

Price (JD/L)	Projected Increase in Fuel Costs	IRR
0.3	-25%	24.20%
0.400		18.53%
0.50	25%	12.82%
0.60	50%	6.97%
0.70	75%	0.79%

As per the findings of the analysis, the project will not be feasible would the price of fuel increase beyond JD 0.4/Liter as the IRR would be below the breakeven rate of 14%.

10.3 Scenario One

A second scenario was developed, adopting the same assumptions of the base case scenario, to assess the feasibility of the operational model assuming that three new tourism development projects will join the company after its establishment. The model assumes that two of the tourism development projects will need to transport an average of 200 employees each while the third one will transport an average of 400 employees as depicted in the table below;

Number of Employees to be Transported by the Bus Company										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Number Employees	1,465	200		200		400				
Total	1,465	1,665	1,665	1,865	1,865	2,265	2,665	2,665	2,665	2,665

The new tourism development projects will join the company by contributing 25% of the value of the new buses needed to transport the additional number of employees.

10.3.1 Assumptions

- Capital Investments

Capital Investments & Depreciation												
		Year 0	year 1	year 2	year 3	year 4	year 5	year 6	year 7	year 8	year 9	year 10
Capital Investments (JDs)												
Number of New Buses Required	50 Pax			2	2	2	3	4	2	2	2	3
	30 Pax			4	2	4	13	8	4	2	4	13
Capital investment by company		1,157,814	0	0	249,842	0	794,328	0	365,380	289,635	387,632	920,844
Capital investment by current hotels in company		0	0	0	83,281	0	264,776	0	121,793	96,545	129,211	306,948
Capital investment by new hotels under scenario 1		0		420,240		445,833		945,968				
Total Capital investments		1,157,814	0	420,240	333,123	445,833	1,059,104	945,968	487,173	386,180	516,842	1,227,792
Depreciation (JDs)												
Original buses & equipment		0	256,683	256,683	260,507	260,507	284,128	284,128	284,128	294,740	294,740	328,477
New buses		0	0	84,048	84,048	173,215	173,215	362,408	375,795	375,795	389,997	389,997
Total depreciation		0	256,683	340,731	344,555	433,722	457,343	646,536	659,923	670,534	684,736	718,474

10.3.2 Projected Financial Statements

10.3.2.1 Projected Income Statement

Private Dead Sea Transportation Company																			
Projected Income Statement (JDs)- Scenario 1																			
	Year 1	Year 2	Growth	Year 3	Growth	Year 4	Growth	Year 5	Growth	Year 6	Growth	Year 7	Growth	Year 8	Growth	Year 9	Growth	Year 10	Growth
Income	879,000	1,098,900	25.0%	1,208,790	10.0%	1,489,389	23.2%	1,638,328	10.0%	2,188,683	33.6%	2,407,551	10.0%	2,648,307	10.0%	2,913,137	10.0%	3,204,451	10.0%
Operational Expenses	499,788	665,609	33.2%	702,925	5.6%	891,374	26.8%	950,447	6.6%	1,348,878	41.9%	1,456,225	8.0%	1,584,712	8.8%	1,739,637	9.8%	1,927,780	10.8%
Gross Operational Profit	379,212	433,291	14.3%	505,865	16.7%	598,015	18.2%	687,881	15.0%	839,805	22.1%	951,327	13.3%	1,063,594	11.8%	1,173,501	10.3%	1,276,670	8.8%
G & A expenses	92,127	100,172	8.7%	109,017	8.8%	118,744	8.9%	129,439	9.0%	141,200	9.1%	154,133	9.2%	168,354	9.2%	183,993	9.3%	201,191	9.3%
EBITDA	287,085	333,119	16.0%	396,848	19.1%	479,272	20.8%	558,442	16.5%	698,605	25.1%	797,194	14.1%	895,240	12.3%	989,508	10.5%	1,075,480	8.7%
Depreciation	256,683	340,731	32.7%	344,555	1.1%	433,722	25.9%	457,343	5.4%	646,536	41.4%	659,923	2.1%	670,534	1.6%	684,736	2.1%	718,474	4.9%
Loan interest Charges	30,815	21,460	-30.4%	11,217	-47.7%	0	-100.0%	0		0		0		0		0		0	
Taxable profit	-413	-29,072	6938.4%	41,076	-241.3%	45,550	10.9%	101,099	122.0%	52,069	-48.5%	137,271	163.6%	224,706	63.7%	304,771	35.6%	357,006	17.1%
Income tax (25%)	-103	-7,268	6938.4%	10,269	-241.3%	11,387	10.9%	25,275	122.0%	13,017	-48.5%	34,318	163.6%	56,176	63.7%	76,193	35.6%	89,251	17.1%
Net Profit/Loss	-310	-21,804	6938.4%	30,807	-241.3%	34,162	10.9%	75,825	122.0%	39,052	-48.5%	102,953	163.6%	168,529	63.7%	228,578	35.6%	267,754	17.1%
Retained earnings	-310	-22,114	7038.4%	8,693	-139.3%	42,855	393.0%	118,680	176.9%	157,732	32.9%	260,685	65.3%	429,215	64.6%	657,793	53.3%	925,548	40.7%

10.3.2.2 Projected Cash Flow

Private Dead Sea Transportation Company																			
Projected Cash Flow Statement- Scenario 1																			
	Year 1	Year 2	Growth	Year 3*	Growth	Year 4	Growth	Year 5**	Growth	Year 6	Growth	Year 7	Growth	Year 8***	Growth	Year 9	Growth	Year 10****	Growth
Internal investment	0	0		249,842		0	-100.0%	794,328	#DIV/0!	0	-100.0%	365,380	#DIV/0!	289,635	-20.7%	387,632	33.8%	920,844	137.6%
EBITDA	287,085	333,119	16.0%	396,848	19.1%	479,272	20.8%	558,442	16.5%	698,605	25.1%	797,194	14.1%	895,240	12.3%	989,508	10.5%	1,075,480	8.7%
Interest repayment	30,815	21,460	-30.4%	11,217	-47.7%	0	-100.0%	0		0		0	#DIV/0!	0		0		0	
Loan repayment	98,473	107,828	9.5%	118,071	9.5%	0	-100.0%	0		0		0	#DIV/0!	0		0		0	
Net cash flow	157,797	203,831	29.2%	17,718	-91.3%	479,272	2605.0%	-235,886	-149.2%	698,605	-396.2%	431,814	-38.2%	605,605	40.2%	601,876	-0.6%	154,636	-74.3%
Cumulative cash flow	157,797	361,628	129.2%	379,346	4.9%	858,618	126.3%	622,732	-27.5%	1,321,337	112.2%	1,753,152	32.7%	2,358,757	34.5%	2,960,633	25.5%	3,115,268	5.2%

10.3.2.3 Net Present Value

Private Dead Sea Transportation Company											
Net Cash Flow Statement (JDs) - Scenario 1											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Capital investment	1,157,814	0	0	249,842	0	794,328	0	365,380	289,635	387,632	920,844
EBITDA		287,085	333,119	396,848	479,272	558,442	698,605	797,194	895,240	989,508	1,075,480
Interest repayment		30,815	21,460	11,217	0	0	0	0	0	0	0
Loan repayment		98,473	107,828	118,071	0	0	0	0	0	0	0
Net cash flow	-1,157,814	157,797	203,831	17,718	479,272	-235,886	698,605	431,814	605,605	601,876	154,636

The discount rate was estimated at 13.13% based on the Weighted Average Cost of capital (WACC) for the transportation sector in Jordan and the equity/debt ratio for the project. Accordingly, and based on the above the Bus Transportation Company is expected to have an NPV of positive 267,690

10.3.2.4 IRR

The IRR under scenario 1 was estimated at 17.96% reflecting the viability of the company assuming that 3 new tourism development projects join the company.

11. OTHER POTENTIAL SOURCES OF INCOME

Sources of revenues, other than revenues generated from transporting hotels' employees, can be identified to ensure the viability of the transportation company. These areas were as follows:

1. Transporting employees of third parties who are not shareholders in the transportation company. These include others hotels, construction companies...
2. Transporting laundry, groceries and courier from to and from Hotels
3. Transporting local tourists from Amman to the Dead Sea mainly on weekends

Unfortunately, all indicators for the second and third possibilities did not seem to have tangible benefits.

Moreover, such possible external sources of income would have been even more important had the study proved not to be feasible, but in this case, as was expected by most hotel operators, the true benefit of the company will be mainly and possibly only realized through the successful and reliable safe transportation of employees to and from the Dead Sea area.

It has also to be noted that any additional transportation of staff would ultimately require more buses. To that effect, it is strongly advisable that net income realized, be placed in safekeeping unto such time that enough money has been gathered for the company to invest in new buses for its own benefit and the benefit of extra business that may be provided by the future growth expected in the Dead Sea area.

USAID Jordan Economic Development Program
Deloitte Consulting LLP
Salem Center, Sequleyah Street, Al-Rabiyeh
Amman, 11194 Jordan
Phone: + 962-6 550-3050
Web address: <http://www.SABEQ-Jordan.org>