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ADDIS ABEBA CITY ADMINISTRATION INVESTMENT COMMISSION
A.A

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I. Executive summary

This project profile is prepared to assess the viability of running Five Star International Hotel, in

Addis Abeba city administration. Hence Market, Technical, Organizational and Financial study was

made to investigate the viability of the envisaged project.

This project profile on Five Star International Hotel has been developed to support the decision –

making process based on a cost benefit analysis of the actual project viability. This profile includes

marketing study, production and financial analysis, which are utilized to assist the decision-makers

when determining if the business concept is viable. Ethiopia has a private sector driven Five Star

International Hotel. According to the latest data sourced from Ethiopian investment commission

(EIC) there are more about 10 registered five-star international hotel.

The hotel will have bedrooms and will offer versatile services and facilities. Of the total 100 rooms,

25 will be double rooms, 70 single rooms and 5 suits.

The total investment capital including establishing the factory is Birr 302.188 million. Out of the

total investment capital, the owners will cover Birr 214 million (30 %) while the remaining balances

amounting to Birr 500 million (70 %) will be secured from bank in the form of term loan.

As indicated in the financial study, the cash flow projection of the project shows surplus from the

first year on. The net cash flows of the project range from Birr 14.32 Million in the first year to Birr

31.17 million at the end of the 10th year of operation. At the end of the 10th year of operation period

the cumulative cash balance reaches Birr 349.98. The Benefit-cost ratio and Net present value (NPV)

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have been calculated at 17% discount factor (D.F) for 10 years of the project activity. Accordingly, the project has NPV of 45 million Birr at 17% D.F. and the benefit-cost ratio of 1.06 at 17% D.F.

Therefore, from the aforementioned overall market technical and financial analysis we can conclude that the Five-star international hotel business is a viable and worthwhile.

1. BACKGROUND INFORMATION

1.1 Introduction

This document was undertaken to show Five-star international hotel profile in Addis Ababa. In

compiling the report, information has been complied by visiting the existing international hotels with

in Addis Ababa and discussion with various professionals in similar fields and review of technical

documents about the five star international standard hotels.

Presently, in spite of high demand and its crucial importance, number of international standard hotels

in the country is very low compared to number of nonresident tourists and other guests coming to

the country. This constrained the achievement of tourism related development goals and also

impeded accelerated progress towards hotel and tourism successes.

Development of international standard (star leveled) hotels are fundamental importance to Ethiopia's

present and future demand. In Ethiopia, the demand for international hotels- particularly tourist

related hotels are expected to increase considerably in the next few decades as a result of tourist flow

to the country, increased population growth, urbanization, and increasing income levels. Therefore,

in a country like Ethiopia, it is important to identify gaps and potential in the development of

international standard hotel.

1.2 Product Description and Application

International standard tourist hotel is high class hotel (from three to five-star level) where services

like bedroom, catering, meeting rooms, multipurpose assembly hall, swimming pool, Spa (Hot

Spring), gymnasium, sauna and massage, other sports facilities like tennis or squash court, min-golf

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or badminton, bowling, table tennis and children playground, night club with dancing to live music

or discotheque or cabaret etc.

A hotel is an establishment that provides paid lodging on a short-term basis. Facilities provided may

range from a modest-quality mattress in a small room to large suites with bigger, higher-quality

beds, a dresser, a refrigerator and other kitchen facilities, upholstered chairs, a flat screen television

and en-suite bathrooms. Small, lower-priced hotels may offer only the most basic guest services and

facilities. Larger, higher-priced hotels may provide additional guest facilities such as a swimming

pool, business center (with computers, printers and other office equipment), childcare, conference

and event facilities, tennis or basketball courts, gymnasium, restaurants, day spa and social function

services. Hotel rooms are usually numbered (or named in some smaller hotels and B&Bs) to allow

guests to identify their room. Some boutique, high-end hotels have custom decorated rooms. Some

hotels offer meals as part of a room and board arrangement.

1.3 Project Location and Justification

1.3.1 Location of Addis Ababa

Addis Ababa is the seat of the Ethiopian federal government. It is located on the central highlands

of Ethiopia in the middle of Oromia Region. The absolute location is around the intersection point

of 901'48". N latitude and 38°44'24" E longitudes. This is very near to the geographical center of the

country. It is, therefore, equidistant to the peripheral areas or is equally accessible to almost all parts

of Ethiopia. Addis Ababa is located on a well-watered plateau surrounded by hills and mountains.

The city is in the highlands on the edge of the Ethiopian rift valley or the eastern slopes of the Entoto

Mountain ranges bordering the Great Rift Valley. The total area of Addis Ababa is about 540 km²

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of which 18.2 km² are rural. Addis Ababa's built-up urban area spans 474 km². It is also the largest

city in the world located in a landlocked country.

1.3.2 Demography of Addis Ababa

According to the CSA (2013) population projection, Ethiopia's total population reaches about 105

million people in 2022. Of the total population 22.9% (24 million people) live in urban areas.

Ethiopia's urban population is expected to triple by 2037 (World Bank, 2015). Addis Ababa hosts

an estimated 3,859,638 people. Currently, Addis Ababa is experiencing an annual growth rate of

3.8% and is estimated to reach 4,696,629 inhabitants by 2032 (CSA, 2015).

1.3.3 Economic activity of Addis Ababa

The transformation of Addis Ababa has especially been rapid since 1991. According to the data from

the city's Bureau of Finance and Economic Development (2006), per capital income of Addis Ababa

has grown from USD 788.48 in 2010 to USD 1,359 in 2015. The city also achieved a decline in the

poverty index from a high of 29.6 in 2012 to 22.0 in 2014. Moreover, the current poverty headcount

index for Addis Ababa is estimated at 18.9 while the poverty severity account for 5 and 1.8 index

points respectively. Even though, the poverty status of Addis Ababa has an improvement over

previous years, there is still much work to be done to curb both the incidence and severity of poverty.

The major contributor to the economic growth of the city is the implementation of publicly financed

mega urban projects like condominium housing, the Light Rail Transit, the international airport and

industrial zone development (The state of Addis Ababa, 2017). The existence of international large

and medium-size enterprises in and around Addis Ababa have also significant role in creating huge

opportunity for employment and technology transfer. Furthermore, there are strong demand for

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goods and services following the existence of many embassies and inter-governmental organizations

like the African Union, the United Nations Economic Commission for Africa.

The manufacturing sector's contribution to Addis Ababa's GDP is high. Despite the fact that 86%

of the industries in the city are micro and small scale (cottage and handicrafts, and small-scale), the

majority of the country's large and medium scale industries are found in the city. Noticeable

increases are also registered currently in other aspects of industrial growth.

The service sector is both the largest contributor to the city's economy and the largest employer. It

contributes to 76.4% of the city's GDP while industry's share makes up (almost all) the rest. This

sector is dominated by three major sub-sectors: Transport and communication; Real estate, Renting

and Business services; and Trade, Hotel and Restaurants. According to the state of Ethiopian Cities

2015 report, the service sector has also been responsible for more than 50% of the growth in the

estimated annual growth of the city's GDP. Although 75% of employment in the city is also

generated in the service sector, a large proportion of the employed work in low skill and low paying

jobs as shop salespersons, petty and 'gullit' traders, sales workers in small shops, domestic helpers

or doorkeepers and restaurant service workers.

Analysis of the economic structure of Addis Ababa reveals that the services sectors (63%) dominates

with industry (36%) in second place indicating that these sectors account for almost all of the Addis

Ababa's GDP (The State of Addis Ababa, 2017).

Addis Ababa has a great share in the economy of the country due to its attractiveness to businesses,

companies, individuals and foreign direct investment. Overall primacy index of the city is 24.8 based

on urban employment and unemployment survey (CSA 2015). According to the State of Addis

Ababa 2017 report, the simultaneous high rates of economic growth and urbanization in Addis

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Ababa indicates a likely further rising dominance of the city in Ethiopia's economy as well as

growing agglomeration of economic activities in and around the city.

1.4. Why is it beneficial to invest in Addis Ababa?

Addis Ababa is the largest and most economically significant city in the country. Ethiopia's urban

population share is only 17 percent (as of 2012, World Bank 2015). The city is the only urban area

in Ethiopia capable of delivering scale economies in terms of concentrated demand, specialization,

diversity and depth of skills, innovation, and technology transfers. Thus, investors will be benefited

in getting capable human power from the market.

The capital is the country's main industrial hub. The city dominates industrial capacity in almost all

the braches of light manufacturing that Ethiopia prioritizes. As a result Addis Ababa completely

dominates production in various subsectors. This can be taken as the political and social stability of

the city.

Overall, the city has a beautiful environment, favorable location, and strong industrial base. Its

advantage as an economic powerhouse of the country and human resource center are the most

attractive features for local and overseas investors.

Moreover, investors will be getting a comprehensive set of incentives for priority sectors. These

include:

Customs duty free privilege on capital goods and construction materials, and on spare parts

whose value is not greater than 15% of the imported capital goods' total value.

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• Investors have the right to redeem a refund of customs duty paid on inputs (raw materials

and components) when buying capital goods or construction materials from local

manufacturing industries.

Income tax exemption of up to 6 years for manufacturing and agro-processing, and up to 9

years for agricultural investment.

Additional 2-4 years income tax exemption for exporting investors located within industrial

parks and 10-15 years exemption for industrial park developers.

Loss Cary forward for half of the tax holiday period. Several export incentives, including

Duty Draw-Back, Voucher, Bonded Factory, and Manufacturing Warehouse, and Export

Credit Guarantee schemes.

1.4.1. The city benefit from the investment

The city will be benefited from investment. These are discussed below.

Employment opportunity

Investment is expected to provide direct and indirect employment. These range from

unskilled causal workers, semi-skilled and skilled employees.

Improving growth of the economy

Through the use of locally available materials and exporting products, the investment

contributes towards growth of the economy by contributing to the growth of domestic

product. These eventually attract taxes including VAT which will be payable to the

government hence increasing government revenue while the cost of local materials will be

payable directly to the producers. In addition, domestic products save foreign exchange and

exports also bring money to the country.

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2. Marketing study

The hotel industry consists of many different services, including accommodation, restaurants, and

cafes and catering. The market for the hotel industry, especially classified hotels in a developing

country like Ethiopia, is closely linked to the tourism industry, because a majority of consumers for

the sector services come from international tourists.

According to Ethiopian tourist commission, arrivals of non-residence tourist increased from 148,000

in 2001 to 518,000 in 2020 growing at an average annual rate of 8%. Assuming this growth rate will

continue in the future the base year (2022) tourist arrival was calculated; which is 604,195.

As a gateway of all international inbound, outbound and transit tourists/passengers, Addis Ababa

have been taking the lion's share in the country's tourist arrivals hosting an estimated 95-99% of the

total international tourist arrivals.

The bulk of the hotel in Addis Ababa is one to four star hotels while few are five star hotels. In 2017

Addis Ababa had a quality supply of 32 hotels and a total of 3634 keys bed rooms in the market,

giving an average number of 100 rooms per hotel.

Accordingly, assuming 365 working days, currently international standard hotels in Addis Ababa

have a total of 1,158,510 per annum tourist night room capacity. Based on data compilation from

different private hotel managers and other knowledgeable persons the average stay of tourists in a

hotel is assumed to be 3 days.

In order to project tourist arrival in to Ethiopia, the past trend in tourist arrival is considered. As

sated above, the total tourist arrival in the country has registered an 8% average growth rate.

Assuming that this growth rate will continue in the future and taking year 2022 figure (604,195) as

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a base, tourist arrival is forecasted. Moreover, in order to compute the unsatisfied demand, the total annual capacity of international standard hotels in Addis Ababa, which computed to be 1,158,510 rooms per annum, is taken as the existing capacity. Assuming that this figure will grow by 2% annually the total capacity of international hotel was projected for the years 2023 – 2032. The projected tourist room requirement, which is calculated by taking the projected tourist arrival and multiplying it by the average hotel stay of tourists (3 days), the unsatisfied demand, is shown in 1.

Table 1: Projected and unsatisfied demand

Year	Projection of	Room Night	Projected Annual	Unsatisfied
	Tourist Arrival	Demand	Capacity	Demand
2023	652,531	1,957,593	1,181,680	775,913
2024	704,733	2,114,199	1,205,314	908,885
2025	761,112	2,283,336	1,229,420	1,053,916
2026	822,001	2,466,003	1,254,008	1,211,995
2027	887,761	2,663,283	1,279,089	1,384,194
2028	893,022	2,679,066	1,304,670	1,374,396
2029	964,464	2,893,392	1,330,764	1,562,628
2030	1,041,621	3,124,863	1,357,379	1,767,484
2031	1,124,950	3,374,850	1,384,527	1,990,323
2032	1,214,946	3,644,838	1,412,217	2,232,621

Accordingly, based on the market study and other considerations a five-star hotel with room capacity of 100 is recommended.

3. Production Technology and engineering

3.1 Technology

Service process

a) Bed room

The hotel will have bedrooms and will offer versatile services and facilities. Of the total 100 rooms,

25 will be double rooms, 70 single rooms and 5 suits. Bedrooms will be more spacious allowing

ample and generous ease of movement, comfort and relaxation for guests. Among the features of the

guest rooms the major ones are:

Rooms of excellent quality both smoking and non-smoking, and with luxurious standard of

furniture, wall coverings quality paintings and excellent quality floors,

Rooms with absolutely minimal internal and external noise levels,

Very good quality beds with superior head board or similar,

Multi-channel color TV with remote control for watching local and international news,

movies, sports, and music and guest charge systems. In addition to terrestrial channels video

channels would be included,

International direct dialing telephone with easy connection for fax and computer, two room

phones in each room,

Private bath and shower room, all bath rooms equipped with an excellent quality of sanitary

wares and fittings,

Newspaper and magazine,

Radio with several channels,

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Hot and cold water,

Wake up call, and

Hair dryer.

b) Bar and Restaurant

Bar

The bar will provide in-house and terrace food and beverage services .Its totalcapacity is estimated

to be 60 persons at a time.

Restaurant

Two restaurants one modern and the other traditional with a capacity of 200 at a time each will be

established. The restaurants will basically serve breakfast, lunch and dinner by providing daily menu,

weekly buffet, and other choices of customers.

Coffee Shop

A small - cozy coffee shop will be established with a capacity of 10-15 seats.

c) Multipurpose Assembly Hall

The proposed capacity of multi-purpose assembly hall is 715 seats. The hall is planned to

accommodate and serve multiple purposes. It can be used for multi-purpose activities by rearranging

of seats and adding appropriate facilities on time and site. The hotel has various options to use

available rooms such as for conventions, wedding services, training, workshops, and others other

public gatherings.

d) Gymnasium

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The envisaged gymnasium will composed of one machine room (200sq. meter), one Aerobics studio

 (100 M^2) .

e) Laundry Center

The laundry center provides in-house cleaning service to bed room, and sauna/stem bathrooms by

providing clean towels, linens, covers and uniform of the employees with the required time and

quantity. The main processes of laundry center are sewing (if any), washing, and squeezing drying,

folding and pressing.

The laundry center will have a daily capacity of providing 200 clean sets of towels, 300 sets of linen

and cover 100 sets of uniforms and other miscellaneous items.

f) Swimming Pool

A swimming pool of having bigger size (50 m long x 25 m width x 1 m to 4 m slopping depth) for

male and female and small size (20m long x 10 m width x 30 cm to 80 cm slopping depth) for

children shall be constructed.

The swimming pool service will be provided to customer from guest room or from outside. Lockers

are provided for customers for clothing and other belongings. The lockers require a coin to be

inserted as deposit or payment. Showers are also ready for customers (male and female), before and

after swimming. Other service requirements (deserts, hot and cold drinks) are also provided to

customers

g) Children's Play Ground

The facilities included in the children's playground are swings, sliding stands, tunnels, merry go

round, sand filled pits, and coin operated toy vehicles and different kinds of arcade video games.

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The whole area of the playground shall be free from any obstruction that could result in accident and

the recreational tools are installed in such a way that they will not cause any accident. The arcade

coin operated video game room having an area of about 100 m² will be constructed from

prefabricated material with ventilation and lighting, and it will be carpeted. It should also be free

from any visible electrical connections and free from an accident or hazard.

3.1.1 Environmental and Social Impact Assessment

Typically, any developmental projects also trigger a set of environmental and social impacts. These

environmental and social due to development projects occur in different forms. An Environmental

and Social Impact Assessment (ESIA) has to be carried out to study the potential environmental and

social impacts of the envisaged hotel. Potential environmental and social on attributes like air

quality, noise, water quality, soil, flora, socio-economic, etc. have to be assessed as part of the ESIA

study. Appropriate mitigation measures to help minimize/avoid impacts from the development have

to be recommended in the study. The measures include avoidance measures, mitigation measures

and environmental enhancement measures.

3.1.2 Service capacity

From the market study, it is observed that there is a great demand gap between the demand and

supply of international standard hotel service. Therefore, taking in to account the market study and

economic scale of service provision the envisaged international standard hotel will have capacities

as shown below (table 2):

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Table 2: Service capacity of the envisaged international standard hotel

S/No	Type of service	Feasible Service Capacity
1	Bedroom	100 rooms, 25 will be double rooms,
		70 single rooms and 5 suits.
2	Bar and Restaurant	
	• Bar	60 persons at a time
	Restaurant (modern and traditional)	200 at a time each
	Coffee Shop	10 – 15 seats at a time
3	Sauna and steam bath	200 heads/day
4	Gymnasium	300 heads/day
5	Swimming pool (Big and small pools)	500 heads/day and 120 head/day
6	Multipurpose assembly hall	750 seats
7	Meeting room	50x3 seats
8	Children playground	50 at a time
9	Night club	300 at a time

3.1.3 Service program

At the initial stage of the provision period, the hotel would require some years to penetrate into the market and capture a significant market share. Therefore, in the first year of service the capacity utilization rate will be 70% and progressively increase by 10%. Full service provision shall be attained in the fourth year and then after. The proposed service provision program is shown in Table 3.

Table 3: Service provision program

S/No.	Service	Service year			
		1	2	3	4-10
1	Service provision rate (%)	70	80	90	100

3.1.4 Materials and inputs

The annual cost and list of raw materials are indicated in table 4.

Table 4: Raw materials input cost

S/No.	Description	Unit of measure	Quantity	Total cost (000)
				Birr
I	Sauna/steam bath			
1.1	Set of towels	Set	500	280
1.2	Gripping plastic floor mat	Pcs	12	1
1.3	Head cover	Pcs	900	3
1.4	Sauna oil scent	Bottle	20	5
1.5	Eucalyptus fragrance aroma	Bottle	1600	300
1.6	Cedar fragrance aroma	Bottle	1000	200
1.7	Winter green fragrance	bottle	1100	200
	aroma			
1.8	Menthol fragrance aroma	Bottle	1200	210
1.9	Sauna soap (200 pcs/pkt)	Pkt	100	220
1.10	Pine scent	Pkt	200	500
1.11	Birch scent	Pkt	200	500
1.12	Sauna brush with long	Pcs	100	30
	handle			
1.13	Sauna head & back rests	Set	80	6
1.14	Sauna sponges	Pcs	500	50
	Sub total			2,505

Table 4 Cont'd

S/No.	Description	Unit of	Qty	Total cost
		measure		(000) Birr
II	Massage			
2.1	Bolsters pillows and supports	set	3	8
2.2	Multi purposes massage cream (assorted size)	Lump sum		15
2.3	Massage oil (assorted size)	Lump sum		15
2.4	Massage gels (Assorted size)	Lump sum		15
2.5	Linens & covers (Assorted size)	Lump sum		8
	Sub total			61
III	Laundry Center			
3.1	Cleaning agent (Assorted)	Lump sum		100
3.2	Swing thread (Assorted)	Lump sum		1
	Sub total			101
IV	Multipurpose assembly hall			
4.1	Instrumental Audio CD (assorted)	Lump sum		7
4.2	CD cleaner (assorted)			1
	Sub total			8
V	Modern and traditional restaurant, Bar and coffee shop			
5.1	Food (35% of revenue)			162
5.2	Beverage (35% of revenue)			150
	Sub total			312
VI	Swimming pool			
6.1	Toilet soap	Pcs		50
6.2	Cleaning agent (assorted)	Lump sum		90
	Sub total			140
VII	Other miscellaneous items			70
	Sub total			70
	Grand total			3, 197

3.2 Engineering

3.2.1 Land, buildings and civil works

The required area (m²) and construction cost for the production facilities essential for the successful

operation of the processing plant is shown in Table 5. A total area ready for the processing plant is

5,000 m² out of which 3,500 m² is to be covered by building while uncovered area of 1,500m² is left

storage of waste materials and future expansions. In order to estimate the land lease cost of the

project profiles it is assumed that all the project will be located in different land level from level 1/1

to level 4/3, their current market lease price is from 39,073.31 birr per M ² to 2,800.71 birr per M

²respectively. Therefore, for the profile a land lease rate of birr 3,885 per M ² have been taken,

which is between the ranges.

The cost of construction of building should be appropriate to the size and expected profitability of

business, costs of building generally differs by the type of construction materials used, the type of

foundation, wall height and location. The current building cost for simple storage and other building

is from 10,000.00 Birr per m² to 25,000.00 Birr per m². The total construction cost of buildings and

civil works, at a rate of Birr 20,000 per m is estimated at Birr 644.30 million. Therefore, the total

cost of land lease and construction of buildings and civil works is estimated at Birr 663.725 million.

The proposed plant layout comprises the following buildings and structures.

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Table 5 Building costs

S/No			Estimated cost per	Total estimated
	Descriptions	Total area	square meter (in	cost
		in M ²	Birr)	(in Birr)
1	Main building G ⁺⁸	2,000	35,000.00	630,000,000.00
2	Boiler room	100	20,000.00	2,000,000.00
3	Store	300	20,000.00	6,000,000.00
4	Generator room	20	20,000.00	400,000.00
5	Power station room	20	20,000.00	400,000.00
6	Administration office	100	20,000.00	2,000,000.00
7	parking	500	5,000.00	2,500,000.00
8	Green area	460	Lump sum	1,000,000.00
9	For future expansion	1,500	0.00	0.00
	TOTAL	5,000M ²		644,300,000.00

Table 6 Land lease period in Addis Abeba

Sector of development	Period of	Down
activity	lease	payment
Education, health,	90	10%
culture and sports		
Industry	70	10%
(manufacturing)		
commerce	60	10%
For urban agriculture	15	10%
For others	60	10%

Sources: - city government of Addis Abeba land development and management bureau

Table 7 Land lease floor price in Addis Abeba

S/No	Land level	Current land lease	Current lease price per M ²
		floor price per M ²	(Market price)
1	1/1	2,213.25	39,073.31
2	1/2	2,165.47	36,825.73
3	1/3	1,900.19	34,578.15
4	1/4	1,552.93	31,119.21
5	1/5	1,531.91	29,096.45
6	2/1	1327.39	27,073.71
7	2/2	1,221.18	25,050.96
8	2/3	1,191.17	23,028.21
9	2/4	1,074.39	21,005.46
10	2/5	1,027.84	18,982.71
11	3/1	994.71	16,959.96
12	3/2	960.21	14,937.21
13	3/3	927.84	12,914.46
14	3/4	904.77	10,891.71
15	3/5	873.74	8,868.96
16	4/1	814.06	6,846.21
17	4/2	786.45	4,823.46
18	4/3	748.80	2,800.71

Sources: - city government of Addis Abeba land development and management bureau

3.2.2 Machinery and equipment

The total cost of machineries, equipment, articles and accessories required by the envisaged hotel is estimated at Birr **26,169,000**. The complete list of machinery and equipment together with estimated cost are shown in Table 8.

Table 8: Machinery and equipment required and cost

Sr. No.	Description	Qty	Total Price (Birr)
	Bed rooms facilities		
	Foldable Rest chair, Foldable rest bed, Wall mirror (1x	_	800,000
1	1.5mt), Supply and Installation, Sofa Guest chair (Three	sum	
	seat), Wardrobe with coat hungers, Receptionist table,		
	Single pedestal, Swivel chair, Satellite dish with Color		
	TV 21" & Antenna, Public addressing system, and Wall		
	watch.		
	Laundry center facilities		
	Laundry center (Supply andInstallation) comprising of		
	Washing machines, drying machine, squeezing machine,	Lump	600,000
2	Ironing (pressing) machines, steam drying machines	sum	
	electrical hydro-extractor and sewing machine. Daily a		
	capacity of providing 100 clean set of towels, 300 sets of		
	linen & cover 50 sets of		
	Uniforms.		
	Sauna and Steam bath facilities		

	Sauna Electric heater, 10.5 Kw 44amp/70breaker,		
	Sauna bucket, wooden 4 lt., Sauna Ladle (Dipper),		
	Wood, Birch,381mm Long, Sauna thermometer Wood,		
	Shows °Fand °C, 140mm Square, Electronic sauna timer		
3	90 Minute, Sauna hygrometer, Steam generator,		
	Clothe hunger (Peg rack), Foldable Rest chair, Foldable	Lump	1,200,000
	rest bed, Wall mirror (1x 1.5mt), Supply and Installation,	sum	
	Sofa Guest chair (Three seat), Wall mounted Lockers,		
	supply andinstallation, 10 lockers in one, Receptionist		
	table, Single pedestal, Swivel chair,		
	Satellite dish with Color TV 21" & Antenna, Public		
	addressing system, and Wall watch.		

Table 8 cont'd

Sr. No.	Description	Qty	Total Price (Birr)
	Physiotherapy facilities		
	Infrared heaters, for facial treatment, Aerobics, Public		
	addressing system (supply and installation), Aerobics		
	dumbbell, Stepping rocks (assorted), Wall mounted		
4	mirror (supply and installation), Physical fitness		
	(Machine), Bike protus, Track tread mills (electrical),		
	Track tread mills (manual), Heart rate monitors and		
	pedometers, Body solid endurance up right, Muscular	Lump sum	2 000 000
	dynamics, Simplex II series, Massage, Portable massage	zamp sam	2,000,000
	table with tools and accessories, Massage bodywork tools,		
	Massage chair with tools & Accessories,		
	Massage store heater, Massage table electric warming		
	pad, Fleece massage table pad, Massage music and video		
	kit, Pillows/body support/ back care, Cleaner and		
	sanitizers, Wall mirror (1x 1.5mt), Supply and		
	Installation, Sofa Guest chair (Three seat), Wall mounted		
	Lockers, supply and installation, 10 lockers in one,		
	Receptionist table, Single pedestal, Swivel chair, Satellite		
	dish with Color TV 21" & Antenna, Public addressing		
	system, and Wall watch.		

Table 8: Cont'd

Sr.No.	Description	Qty	Total Price(Birr)
	Multi-Purpose Assembly Hall facilities		
	Foldable sofa chair supply and Installation, Guest chair with arm seat,		
	Laminated conference table (200x100x175), Window curtain, Valance		
	type (supplyand installation), Stage lighting (decorative quartz flood		
5	lights and spot lights) (assorted), Multimedia projector, LCD projector,	Lump	6,200,000
3	Overhead projector, Projector screen with portable tripod(250x250),	sum	3,200,000
	Wall mounted projector screen (300-350x300-350), Public Addressing		
	System, Auditoriatype (supply & Installation), Sink with two bay(for		
	the kitchen), Multimedia service (Supply and installation) comprising		
	20 brand desktop computers with accessories, 17" monitor (20 nodes),		
	Server Network accessories (Terminals, patch cords, patch panels,		
	switches/hubs, cables, cable trays, etc.), Tele broad band service line		
	etc. Heavy duty & color photocopy Machine, Binding machine,		
	Laminating machine, Heavy duty & color photocopy Machine, Kitchen		
	working table with drawers, 3m x90cm, Kitchen cabinet, Cabinet for		
	coffee, tea cups, spoons etc., Sink with two bay for washing tea and		
	coffee cups, draft glasses, water glasses etc.,. Digital satellite dish with		
	all Accessories, Steel legged adjustable height chairs around the		
	balcony, Plastic chair, Oval shaped plastic table, Umbrella, Presidential		
	desk 75x32x100cm), Law back swivel chair, Laminated conference		
	table (200x100x175 cm), Guest chair with arm seat, Sofa guest chair		
	with arm seat, Oval coffee table, Chair with arm seat, Metallic storage		
	cabinet, slide, Dixon shelf (250x100x50), Meeting room chairs with arm		
	seat, Meeting room table (200x100x125),		
	White board (200x150), Cash safe box, Brand desktop computer,		
	Laser jet printer, Fax machine (with scanner & copy), Electronic type		
	writer, Photocopy machine, Carpet, woolen strip (160x230cm), Carpet,		
	woolen strip (160x230cm), Window curtain, Blind vertical fabric 1st		
	grade (Supply and installation), Floor carpet (Supply and installation),		
	Floor carpet (Supply and installation), Window curtain, Blind vertical		
	fabric 1st grade (Sup and inst.), Coffee machine 2olt., Water glass,		
	Coffee cups with saucer, Tea cups w/saucer, Butter plate, Bread plate,		
	Sugar dispenser size 6, Juice glass, Tea spoon, Coffee spoon, Juice		
	strainer, Oil & vinegar holder, Kitchen knife, Refrigerator 240 lt,		
	Deepfreeze 500lt, Gas burner with cylinder 12kg two gas and two		
	electric stoves, Frying pans, Dishes with two handle, Pressure cooker (1		
	up to5 bars), Medical Equipment, tools, and instruments and furniture		
	for the Clinic.		

Table 8: Cont'd

Sr.	Description	Qty	Total Price
No.			(Birr)
	Swimming Pool facilities		
	Wall mounted Lockers, supply andinstallation, 10 lockers		
6	in one, Foldable Rest chair, Foldable rest bed, Lawnmower,	Lump	900,000
	Chemical mixing tank, 2 M ³ supply and installation,	sum	
	Chemical dosing pump, supply and installation, Coffee		
	machine 10 lt, Plastic chair, Oval shaped plastic table,		
	Umbrella, Juice glass, Tea spoon, Coffee spoon, Juice		
	strainer, Juice glass, Water glass, Coffee cups with saucer,		
	Tea cups w/saucer, and Ice cream box.		
	Park and Recreation Center		
	Lawnmower, Wheelbarrow, Metal Scrapper (fork),		
7	Coffee machine 10 lt, Plastic chair, Oval shaped plastic	Lump	1,100,000
	table, Umbrella, Juice glass, Tea spoon, Coffee spoon,	sum	_,,
	Juice strainer, Juice glass, Water glass, Coffee cups with		
	saucer, Tea cups w/saucer, Ice cream box, Water sprinklers,		
	Water hose nylon rope reinforced 25.4 mm dia, 36 mt		
	length with clamp, Gardener kit, Children Play ground,		
	Two chain rope swing with steel sit and stand,		
	Plastic made Slide and hide tower (2-8 years), 15ft x 42 in.		
	plastic made play tunnel, Merry-go-round (made of steel),		
	See-saw (made of steel), Sand filled pits, 5m2,		
	Coin operated toy vehicles, Coin operated video game		
	machines (different type).		

Table 8: cont'd

Sr.	Description	Qty	Total Price
No.			(Birr)
	GUEST ROOMS		
	BED ROOMS		
8	Bed sets - queen size, 2 by 1.90 m(for 3 suite rooms), Bed	Lump sum	3,500,000
	sets – single, 1.20 * 1.90m (for 24 double/twin rooms),		
	Bed -2*1.90, Bed-1.2*1.90, Bed side armoires-wood with 2		
	chest Drawers, Sofa-single seat upholstery 2 for each room,		
	Coffee table-round glass top, Chair- wooden, Writing table-		
	wooden with 4 chest Drawers, Luggage rack- movable &		
	flexible, Wardrobe – wooden built-in with Partitions, TV set		
	- 14 inches, flat screen, Telephone, Bath, Shower, Toilet		
	seat, Washing basin, and Mirror.		
	MODERN RESTAURANT		
	Tables- round, Chairs, Side service tables, Service trolleys,		500,000
9	Cupboards, Main dish Plate with rim- 20 cm, Soup cup with	Lump Sum	
	saucer, Salad plate, Bread plate, Salt & pepper -set, Butter		
	holder/dish, Coffee cup with saucer, Tea cup with saucer,		
	Soup spoon, Main dish knife, Forks, Salad knife, Dessert		
	bowl, Water glass, Red wine glass, White wine glass,		
	Champagne glass, Liqueur glass, Cocktail glass, Beer glass,		
	Wine cooler with stand, Ashtray, Cash register, Wine		
	storage shelf,		

Table 8: Cont'd

Description	Qty	Total Price
		(Birr)
BAR		
Table, Chairs, Bar counter, Beverage shelf/ cup board,		420,000
Bar stool (counter chairs), Bar coffee machine, Mixer &	Lump	
Juicer, Beverage dispenser, Water glass, White wine	sum	
glass, Red wine glass, Wine cooler, Ice bucket, Cash		
register, and Ashtray.		
Traditional Restaurant		
Short-leg traditional chair, Short-leg traditional table,		
Traditional sofa – set (3,2,1 seats with table),	Lump	530,000
Traditional lamp shed- big size, Traditional ordinary	sum	
stool, Food & beverage serving trays, Sauce (wet)		
preparing pot- big, medium, small size, Refrigerator,		
Counter with shelve and drawers, Cash register, and		
Washing basin unit.		
COFEE SHOP		
		240,000
Coffee shop counter unit- custom built, Coffee	Lump sum	340,000
machine, Long-leg counter stool, Chair with coffee		
table (set), Coffee cup with saucer, Tea cup with saucer,		
and Sugar holder (for all outlets).		
HOUSEKEEPING		
Cleaning trolley, Supplies and linen storage shelf unit.		200,000
Wet and dry floor cleaning machine, Vacuum cleaner	sum	
(upright), Mop trolley with squeezer, Buckets big size,		
And Buckets small size.		
	BAR Table, Chairs, Bar counter, Beverage shelf/ cup board, Bar stool (counter chairs), Bar coffee machine, Mixer & Juicer, Beverage dispenser, Water glass, White wine glass, Red wine glass, Wine cooler, Ice bucket, Cash register, and Ashtray. Traditional Restaurant Short-leg traditional chair, Short-leg traditional table, Traditional sofa — set (3,2,1 seats with table), Traditional lamp shed- big size, Traditional ordinary stool, Food & beverage serving trays, Sauce (wet) preparing pot- big, medium, small size, Refrigerator, Counter with shelve and drawers, Cash register, and Washing basin unit. COFEE SHOP Coffee shop counter unit- custom built, Coffee machine, Long-leg counter stool, Chair with coffee table (set), Coffee cup with saucer, Tea cup with saucer, and Sugar holder (for all outlets). HOUSEKEEPING Cleaning trolley, Supplies and linen storage shelf unit, Wet and dry floor cleaning machine, Vacuum cleaner (upright), Mop trolley with squeezer, Buckets big size,	BAR Table, Chairs, Bar counter, Beverage shelf/ cup board, Bar stool (counter chairs), Bar coffee machine, Mixer & Juicer, Beverage dispenser, Water glass, White wine glass, Red wine glass, Wine cooler, Ice bucket, Cash register, and Ashtray. Traditional Restaurant Short-leg traditional chair, Short-leg traditional table, Traditional lamp shed- big size, Traditional ordinary stool, Food & beverage serving trays, Sauce (wet) preparing pot- big, medium, small size, Refrigerator, Counter with shelve and drawers, Cash register, and Washing basin unit. COFEE SHOP Coffee shop counter unit- custom built, Coffee machine, Long-leg counter stool, Chair with coffee table (set), Coffee cup with saucer, Tea cup with saucer, and Sugar holder (for all outlets). HOUSEKEEPING Cleaning trolley, Supplies and linen storage shelf unit, Wet and dry floor cleaning machine, Vacuum cleaner (upright), Mop trolley with squeezer, Buckets big size,

Table 8: cont'd

Sr.	Description	Qty	Total Price
No.			(Birr)
	KITCHEN		
14	Electrical & gas grill with six burners, Microwave		
	oven-20nos, Salamander, Deep fryer, Mixer, Silcer,	Lump	1,500,000
14	Hot – water bath (bain maire), Freezer, Stock pot(50	sum	
	liters), Sauce pan, Sauce pot(50 liters), Boiler(30		
	liters), Baking pan, Roasting pan, Scale(portion),		
	Scale, Measuring spoons, Chef's Knife (10 in.),		
	Salad knife (6 in.), Vegetable knife (2in.), Boning		
	(6in.), Slicer knife (12in.), Bucher's knife(12in.),		
	Cleaver (4in.), Vegetable peeler (set), Cutting Board –		
	hard rubber, Pastry wheel, Kitchen spoon (perforated),		
	Kitchen spoon (solid), Skimmer (long),		
	Tongs (long), Grater (normal size), Strainer, Can		
	opener, Kitchen counter top, with cupboard Unit, Sink		
	unit (900 / 1600mm), Wall attached shelves		
	Refrigerator (self-contained)- 1500lt, Hot cupboard		
	(warmer) Toaster, Ice cream machine, and		
	Dishwashing machine.		
15	Stand By Generator Set With Canopy And Accessories(100KVA)		4,000,000
	Total		23,790,000
	Contingency (10%)		2,379,000
	Grand total		26,169,000

4. Organizational structure

The selection of structure of the envisaged project is made based on the existing structure of manufacturing plants operating in the country, the capacity, complexity and technology mix of the plant. Organizational structure principles such as specialization, coordination, and departmentalization are also considered for design of structure that best suits the envisaged project

4.1. Manpower requirement and annual manpower costs

Table 9 Man power requirement and labour costs

S.no	description	Number	Monthly salary	Annual salary, Birr
1	General Manager	1	50,000.00	600,000.00
2	Coordinator/supervisor	2	20,000.00	480,000.00
3	Assistance Supervisor	3	15,000.00	540,000.00
4	Receptionist	4	10,000.00	480,000.00
5	Pastry and Staff Cafeteria	4	10,000.00	480,000.00
6	Cafeteria supervisor	3	15,000.00	540,000.00
7	Waiter	18	4,000.00	864,000.00
8	Cooker	2	15,000.00	360,000.00
9	Coffee machine operator	3	10,000.00	360,000.00
10	Pastry attendant	4	4,000.00	192,000.00
11	Coffee machine operator	2	7,500.00	180,000.00
12	Dessert attendant	2	5,000.00	120,000.00
13	Massage expert	1	20,000.00	240,000.00
14	Physiotherapist	1	20,000.00	240,000.00
15	Sauna /steam Bath	2	15,000.00	360,000.00
16	Sauna and Steam bath	2	10,000.00	240,000.00
	attendant			
17	life saver	1	25,000.00	300,000.00
18	Casher	3	10,000.00	360,000.00
19	Cleaner vice	4	4,000.00	192,000.00
20	Plumber	2	10,000.00	240,000.00
21	Electrician	2	10,000.00	240,000.00
22	Gardener	3	4,000.00	144,000.00
23	Guards	6	4,000.00	288,000.00
	Sub total			8,040,000.00
	Workers benefit (15% of BS)			1,206,000.00
	Total			9,246,000.00

5. Financial Analysis

5.1General

The financial analysis evaluation of five star international hotel project is mainly consisted of capital

investment as well as operating and maintenance costs. The capital investment costs include fixed

investment costs (initial fixed investment and replacement costs) and working capital, while

operating and maintenance costs comprise current expenses related to material inputs, manpower

cost, utility, repair and maintenance costs, spare parts, Overheads, Sales and distribution, interest

and depreciation expenses.

The financial analysis and evaluation has been conducted taking assumptions:

1. It is assumed that about 70% of the total capital investment costs including the working

capital requirement could be covered through development bank loans of short and long-

term credits. The remaining balance 30% will be covered by equity capital contribution of

the project owner.

2. Even though the project might secure loans under different term and conditions as well as

from different financial sources, for the purpose of calculation of debt service scheduling,

the current development bank of Ethiopia credit terms and conditions have been used.

Consequently. It is assumed that the project will secure loan facility on the basis of 11.5 %

annual interest rate.

3. Even though the estimated project production life is more 10 years, the financial analysis has

been undertaken for a period interval covering the first 10 years only, during which time

most of the capital assets are assumed to be deprecated, debts recovered and pay-back period

accomplished.

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- 4. It is assumed that the project will be start up production activity at 70 % capacity. During years 2 & year 3 the projects is anticipated to gradually increase capacity utilization to reach 100% in year 4. Therefore, starting from year 4 the project will be operational at full capacity.
- 5. For the project under reference promotional, sales and distribution expenses have been estimated at 3% of the sales revenue.
- 6. Maintenance and spare parts costs are 1.5% of the fixed investment costs.
- 7. Furniture and fixture costs assumed to be 500,000.00

5.2 Initial Fixed investment costs

Table 10 Initial Fixed investment costs

S/No	Fixed investment type	Unit of measurement	Quantity	Unit price	Total Amount	Remarks
1	Land	Square meter	5,000	555 birr/year	19,425,000.00	The period of land lease will be 70
2	Buildings and civil works	Square meter	5,670	lump sum	644,300,000.00	years and 10% of the total lease amount will be paid in the first year
	Sub total				663,725,000.00	
3	Machineries	set	2	Lump sum	26,169,000.00	
4	Transformer	set	1	Lump sum	2,000,000.00	
6	Truck and vehicles	Pcs	2	Lump sum	6,000,000.00	
7	Furniture and fixture	Pcs			500,000.00	
	SUB TOTAL				34,669,000.00	
	Fixed capital investment costs				698,394,000.00	
8	pre-operational expenses				2,000,000.00	
	Working capital				13,869,000.00	
	TOTAL INVESTM			714,263,000.00		

5.3 Working capital

Working capital is the financial means required for smooth operation and maintenance of a project

mathematically, it is a difference between current assets and current liabilities. In the particular case

of the project under consideration, the current assets comprise receivables, inventories (local and

imported material inputs, spare parts, work in progress, and products ready for delivery) and cash in

hand, while current liabilities comprise accounts payable to creditors.

5.4Project Financing

Fixed capital investment costs and working capital requirements are assumed to be financed by

equity capital of the owner and through loans of short and long-term credits.

The company obtains loans under different terms and condition as well as from different sources,

for the purpose of calculation of debt service scheduling the current development bank of Ethiopia

credit terms and conditions have been used. Accordingly, it is assumed that the company will be

able to obtain loan 70% of the total investment costs for construction of different buildings for

purchase of machineries. The remaining balance that of the total investment costs will be expected

to be covered by equity contribution of the project promoter.

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5.5 Production costs

As it is depicted in Annex Table 14 major categories of the total production costs are assembled into

the following cost elements.

5.5.1 Material inputs

In the project under study the basic material inputs are listed in table 4. Therefore, the current prevailing

local and international market prices have been used for estimation of material inputs costs. At full capacity

operation the material inputs costs are estimated at Birr 3.20 million per annum.

5.5.2 Utilities

In estimating costs of utility expenses for operation and maintenance of the project, Costs of fuel, oil and

lubricant, electricity and water consumptions have been taken in to consideration, the rates of which have

been estimated on the basis of the proposed capacity utilization program of the project and at the current

official charging rates. At full capacity operation the project will have the following utility expense per annum

which amounts to Birr 6.089 million.

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Table 11 Utilities of the factory'000"Birr

Utility"000"Birr		S	tart-up		Full Capacity
Capacity utilization		70 %	80 %	90 %	100 %
Project year		1	2	3	4
Item description	Unit of measurement				
Fuel					
Gasoline for service vehicle	50km*365days*47Birr/LIT*8km/Li	107	107	107	107
Gasoline for transport truck	(50km*300days*47Birr/LIT*8km/Li)*3	321	321	321	321
Sub-Total		428	428	428	428
Change of oil and lubricant	10% of the fuel consumption	43	43	43	43
Sub-Total		471	471	471	471
Electricity	260days*24 hrs.*325kwh* 1.00Birr/kwh	1,420	1,623	1,825	2,028
Sub- Total		2,839	3,245	3,650	4,056
Water	365days*100m³/day*15 Birr/m³	384	438	493	548
Sub -Total		384	438	493	548
Telecommunication					
Telephone	5 lines* 1,500Birr/month/line+18Birr/line/month	31.08	31.08	31.08	31.08
Mobile	5 lines*1,500 Birr/month/line	30.00	30.00	30.00	30.00
Fax	2line*1,000Birr/month + 17 Birr/line/month	12.40	12.40	12.40	12.40
Internet	25,000Birr/month	300.00	300.00	300.00	300.00
Sub-Total		374	374	374	374
TOTAL		4,068	4,528	4,988	5,449

5.5.3 Over heads

In the expenses under this title have been included land and building taxes, buildings, vehicles as well as machinery and equipment insurance, vehicles annual inspection; postage, telephone and e. mail, stationery and office supplies; printing and copying; audit fee; cash indemnity etc. The overhead costs and divided in to direct overheads and administration overheads.

Table 12 Overhead costs

Direct Overhead"000"Birr		Year 1	Year 2	Year 3	Year 4
Annual land lease Payment		2,775	2,775	2,775	2,775
Insurance					
Building and Civil works	0.10%	644	644	644	644
Machinery and Equipment	0.20%	52	52	52	52
Motor vehicle and Truck	1%	60	60	60	60
Vehicles annual inspection and registration	25,000 Birr per annum per vehicle	50.00	50.00	50.00	50.00
Work cloth	Two times per annum per workers at 1,000 Birr	140	140	140	140
Cleaning and sanitation	An estimate of 300 Birr/day	78.00	78.00	78.00	78.00
Sub Total		3,799	3,799	3,799	3,799
Administration Overhead "000'					
<u>Birr</u>					
Audit fee	40,000 Birr per annum	40.00	40.00	40.00	40.00
Office cleaning and sanitation	2,000 Birr per month	24.00	24.00	24.00	24.00
Stationery and office supplies	2,000 Birr per month	20.00	20.00	20.00	20.00
Printing and Copy	2,000 Birr per month	24.00	24.00	24.00	24.00
Sub Total		108.00	108.00	108.00	108.00
GRAND TOTAL		3,907	3,907	3,907	3,907

5.5.4 Financial costs

As it has been outlined earlier under" project Financing" the current Development Bank of Ethiopia credit terms and conditions for newly establishing projects have been used to compute the financial costs, estimated to be incurred in connection with that of the total investment costs assumed to be covered through loan financing. The amount of the loan capital to be obtained and the financial costs to be incurred thereof have been determined depending on the amount of fixed investment cost and pre-production expenses.

5.5.5 Depreciation

Table 13 Depreciation in Birr"000"

Period				Start-up		
Capacity utilization			70 %	80 %	90 %	100 %
Project year			1	2	3	4
Item description	Original Value					
Structure and civil works	644,300,000.00	5% of original value	32,215	32,215	32,215	32,215
Machinery and equipment	26,169,000.00	15 % of original value	3,925	3,925	3,925	3,925
Transformer	2,000,000.00	15 % of original value	300	300	300	300
Motor vehicles and trucks	6,000,000.00	15% of original value	900	900	900	900
Office equipment and furniture	500,000.00	20 % of original value	100	100	100	100
Pre-production expenses	2,000,000.00	25% of original value	500	500	500	500
Total			37,940	37,940	37,940	37,940

5.6Break Even point and ROI

5.6.1 Break Even point (BEP)

Three kinds of break-even point

- A. BEP Sales Revenue(BR)
- B. BEP production (Volume)
- C. BEP Percentage (%)

A. Break-even point(BEP) Sales

To determine BEP Annual Sales, multiply annual sales found in income statement by the annual fixed cost, and divided by Annual sales less Annual variable cost.

$$BEP (sales) = \frac{Annual \, sales \, x \, Annual \, fixed \, costs}{Annual \, sales - Annual \, variables \, costs}$$

Annual sales = 138,277,000 Birr

$$BEP \ (sales) = = \frac{Annual \ sales \ x \ Annual \ fixed \ costs}{Annual \ sales - Annual \ variables \ costs} = \frac{138,277,000 \ x \ 108,769,000}{138,277,000 - 20,930,000}$$

BEP (Sales) = $\underline{128,169,029}$ Birr $\underline{117,347,000}$

B. BEP percentage =
$$\frac{\text{Annual fixed costs x } 100\%}{\text{Annual sales-Annual variables costs}}$$
$$= \frac{108,769,000 \times 100\%}{138,277,000-20,930,000}$$
$$= 92.6\%$$

5.6.2 Return on investment

Return on investment = Net profit /Total capital requirement

= 48,745,000/714,263,000

= 6.82%

The return on owners' investment (ROOI)

= Annual net profit /owners' investment

= 48,745,000/214,278,900

=22.75%

5.7 Project benefits

For financial analysis and evaluation of the given project, the current hotel materials input price, and

the hotel service price at the project gate has been taken as a basis.

As it has been stated earlier the project is envisaged to reach full capacity operation nine years after

commencement of service activities which are assumed to begin with 70% of the estimated total

capacity.

Thus, according to the computation in Annex Table 17 and Annex Table 19, the net income and cash

flow statements analysis revealed that at full capacity operation the project will generate a total

income (gross revenue) amounting to 197 million Birr per annum. The Net Income Statement shows

a steady growth of gross profit starting from 8.58 million Birr in year 1 reaching the peak of 118

million Birr in year 10. In its 10 years of manufacturing activities, the project is expected to generate

a total net profit of 491.14 Birr and contribute 264.45 million Birr to the government treasury in

form of 35% income tax.

According to the current investment Law, machinery and equipment are anticipated to be imported

duty- free. The liquidity position of the project is very strong. The corresponding Annex Table 19

of "Cash Flow Statement" shows the positive cumulative cash balance of Birr 349.98 million and

the project will not face any cash shortage throughout its production life.

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The computation of the pay-back period as depicted in Annex table 24 indicates that the project will

be able to reimburse itself from its net cash-income within nine years after commencement of

production activities, the period which is considered to be very good for the project of this nature.

In Annex Table 25 of the Benefit-cost ratio and Net present value (NPV) have been calculated at

17% discount factor (D.F) for 10 years of the project activity. Accordingly, the project has NPV of

45 million Birr at 17% D.F. and the benefit-cost ratio of 1.06 at 17% D.F. These results are most

appreciable, especially, when related to the external capital borrowing interest rate which ranges

from 8.50% to 18.5 % for newly establishing projects.

Break-even point (BEP) have been undertaken the project under study when implemented will have

BEP at about 92.60% operation of the estimated full capacity

In addition to this, finally, summary of financial efficiency tests have been conducted in Annex table

23, Accordingly, all efficiency ratios indicated positive trends and consequently, it can be inferred

that the project can operate in the frame work of free market mechanism on commercially and

financially viable basis and is remunerative.

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ANNEXES

NNEX II

CALCULATION OF ANNUAL PRODUCTION COSTS

Table 14 Annual total production costs"000"

Period	Start-up Full capacity									
Capacity utilization	70 %	80 %	90 %	100 %	100 %					
Project Year	1	2	3	4	5	6	7	8	9	10
Cost category										
I. Material inputs including packing materials	2,238	2,558	2,877	3,197	3,197	3,197	3,197	3,197	3,197	3,197
II. Labor	9,246	9,246	9,246	9,246	9,246	9,246	9,246	9,246	9,246	9,246
III. Utility	4,068	4,528	4,988	5,449	5,449	5,449	5,449	5,449	5,449	5,449
IV. Repair and Maintenance and spare parts (1.5 % of fixed cost)	10,476	10,476	10,476	10,476	10,476	10,476	10,476	10,476	10,476	10,476
VI Direct overheads	3,977	3,977	3,977	3,977	3,977	3,977	3,977	3,977	3,977	3,977
A. Direct Production costs	30,005	30,785	31,564	32,345	32,345	32,345	32,345	32,345	32,345	32,345
VII. Administration over head	108	108	108	108	108	108	108	108	108	108
VIII. Marketing and Promotional expense 3 % of sales revenue	4,148	4,741	5,334	5,926	5,926	5,926	5,926	5,926	5,926	5,926
B. Operating costs	34,261	35,634	37,006	38,379	38,379	38,379	38,379	38,379	38,379	38,379
Interest	57,498	54,142	50,399	46,226	41,573	36,385	30,601	24,150	16,959	8,941
Depreciation	37,940	37,940	37,940	37,940	37,440	37,340	35,633	32,215	32,215	32,215
C. Total production costs	129,699	127,716	125,345	122,545	117,392	112,104	104,613	94,744	87,553	79,535

ANNEX IV CALCULATION OF WORKING CAPITAL REQUIREMENTS

I. Minimum requirement of current assets and liabilities

A. Accounts receivable: 26 days at total production costs minus depreciation and interest

B. Inventory

Material inputs: 26 days
 Spare parts: 90 days

3. Work under process: two days at direct costs

4. Product ready for delivery: 8 days at direct costs plus administration overheads

C. Cash on hand : 360 days

D. Accounts payable 26 days for material inputs and utilities

ii. Working capital requirement

Table 15 Calculation of working capital

	Minimum	Coeff-				Project y	year					
	Days of coverage	icient of	Start	up			F	ull capacity				
Cost category	Coverage	turnover	1	2	3	4	5	6	7	8	9	10
I. Current asset												
A. A/R	26	10	3,426	3,563	3,701	3,838	3,838	3,838	3,838	3,838	3,838	3,838
B. Inventory												
1. Material inputs	26	10	224	256	288	320	320	320	320	320	320	320
2. Spare parts3. Work under process	90	4	2,619	2,619	2,619	2,619	2,619	2,619	2,619	2,619	2,619	2,619
4. Product ready for delivery	2	130	231	237	243	249	249	249	249	249	249	249
C. Cash on hand	8	32.5	1,031	1,055	1,079	1,103	1,103	1,103	1,103	1,103	1,103	1,103
	90	4	6,969	7,084	7,199	7,314	7,314	7,314	7,314	7,314	7,314	7,314
D. Current assets			14,500	14,814	15,128	15,443	15,443	15,443	15,443	15,443	15,443	15,443
II. Current liabilities A. A/p	26	10	631	709	787	865	865	865	865	865	865	865
III. Working capital												
A. Net working capital			13,869	14,105	14,342	14,578	14,578	14,578	14,578	14,578	14,578	14,578
B. Increasing in working capital			13,869	236	236	236	0	0	0	0	0	0

ANNEX V

PROJECTED SALES REVENUE

Table 16 projected sales revenue

Period	Start-up			Full capacity						
Capacity utilization	70%	80%	90%	100%						
Project year	1	2	3	4	5	6	7	8	9	10
Item descriptions										
Bed rooms										
Suits Beds(5)	8,943	10,220	11,498	12,775	12,775	12,775	12,775	12,775	12,775	12,775
ii. Single Beds(70)	71,540	81,760	91,980	102,200	102,200	102,200	102,200	102,200	102,200	102,200
iii. Double Beds(25)	31,938	36,500	41,063	45,625	45,625	45,625	45,625	45,625	45,625	45,625
Sub Total	112,421	128,480	144,541	160,600	160,600	160,600	160,600	160,600	160,600	160,600
Restaurant and bar (20%)	22,484	25,696	28,908	32,120	32,120	32,120	32,120	32,120	32,120	32,120
Sauna and steam bath (0.5%)	562	642	723	803	803	803	803	803	803	803
Gymnasium (0.5)	562	642	723	803	803	803	803	803	803	803
Swimming pool (0.5)	562	642	723	803	803	803	803	803	803	803
Meeting room (0.5)	562	642	723	803	803	803	803	803	803	803
Children playground (0.5%)	562	642	723	803	803	803	803	803	803	803
Night club (0.5)	562	642	723	803	803	803	803	803	803	803
Grand total	138,277	158,028	177,787	197,538	197,538	197,538	197,538	197,538	197,538	197,538

ANNEX VI

PROJECTED NET INCOME STATMENT

Table 17 Projected Net income statement "000"

Period	Start	up		Full capacity						
Capacity utilization	70 %	80 %	90 %			100 %				
Project year	1	2	3	4	5	6	7	8	9	10
Item description										
Product sales revenue	138,277	158,028	177,787	197,538	197,538	197,538	197,538	197,538	197,538	197,538
Less total production costs	129,699	127,716	125,345	122,545	117,392	112,104	104,613	94,744	87,553	79,535
Gross profit	8,578	30,312	52,442	74,993	80,146	85,434	92,925	102,794	109,985	118,003
Tax	3,002	10,609	18,355	26,248	28,051	29,902	32,524	35,978	38,495	41,301
Net profit	5,576	19,703	34,087	48,745	52,095	55,532	60,401	66,816	71,490	76,702
Accumulated undistributed profit	5,576	25,279	59,366	108,111	160,206	215,738	276,140	342,956	414,446	491,148

ANNEX VII DEBT SERVICE SCHEDULE AND COMPUTATION PAYMENT OF EQUAL ANNUAL INSTALLMENTS

Table 18 Debt services schedule and computation

Item description			Project	year						
	1	2	3	4	5	6	7	8	9	10
 Investment and working capital 										
1. Investment										
2. Increment working capital										
Total										
 B. Loan receipts and balances 										
 Loan receipts 	499,984	470,796	438,252	401,965	361,506	316,393	266,092	210,006	147,472	77,745
Outstanding balance at										
end of year	499,984	470,796	438,252	401,965	361,506	316,393	266,092	210,006	147,472	77,745
a. First year loan										
m . 1										
Total										
A. Debt service										
First year Loan										
a. Interest	57,498	54,142	50,399	46,226	41,573	36,385	30,601	24,150	16,959	8,941
b. Repayment of principal	29,188	32,544	36,287	40,459	45,113	50,301	56,085	62,535	69,727	77,745

ANNEX VIII CASH-FLOW STATEMENT FOR FINANCIAL PLANING

Table 19 Projected Cash flow statement

Peri	iod		Start up			Full capacity	y				
Cap	pacity utilization	70%	80%	90%	100%						
Proj	ject year	1	2	3	4	5	6	7	8	9	10
Iten	n description										
A.	Cash - inflow	853,171	158,342	178,101	197,852	197,538	197,538	197,538	197,538	197,538	197,538
	Financial resource (total)	714,894	314	314	314						
	2. Sales revenue	138,277	158,028	177,787	197,538	197,538	197,538	197,538	197,538	197,538	197,538
B.	Cash – outflow	838,843	133,243	142,361	151,626	153,116	154,967	157,589	161,042	163,560	166,366
	Total assets schedule including replacement	714,894	314	314	314						
	2. Operating costs	34,261	35,634	37,006	38,379	38,379	38,379	38,379	38,379	38,379	38,379
	3. Debt service (total)										
	a. Interest	57,498	54,142	50,399	46,226	41,573	36,385	30,601	24,150	16,959	8,941
	b. Repayment	29,188	32,544	36,287	40,459	45,113	50,301	56,085	62,535	69,727	77,745
	4. Tax	3,002	10,609	18,355	26,248	28,051	29,902	32,524	35,978	38,495	41,301
C.	Surplus (Deficit)	14,328	25,099	35,740	46,226	44,422	42,571	39,949	36,496	33,978	31,172
D.	Cumulative cash balance	14,328	39,427	75,167	121,393	165,815	208,386	248,335	284,831	318,809	349,981

ANNEX XII TOTAL INVESTMENT COSTS

Table 20 Total investment costs"000"

Period		Start up			Full capacity							
Project year	1	2	3	4	5	6	7	8	9	10	11	
Investment Category												
Fixed investment costs												
a. Initial fixed investment costs	698,394											
b. Replacement												
2. Pre-operational capital expenditure	2,000											
Working capital increase	13,869	236	236	236								
Total investment costs	714,263	236	236	236								

ANNEX XIII TOTAL ASSETS

Table 21 Total Assets

Period		Start up			Full capacity							
Project year	1	2	3	4	5	6	7	8	9	10	11	12
Investment Category												
Fixed investment costs												
c. Initial fixed investment costs	698,394											
 Cost of land 												
d. Replacement												
Pre-operational capital expenditure	2,000											
Current assets increase	14,500	314	314	315								
Total assets	714,894	314	314	315								

ANNEX XIV SOURCES OF FINANCE

Table 22 Sources of finance

Period		Start up			Full capacity						
Project year	1	2	3	4	5	6	7	8	9	10	Total
Sources of finance											
Equity capital	214,279	236	236	236							
Loan capital	499,984										
Current liabilities	631	78	78	78							
Total finance	714,894	314	314	314							

ANNEX XI SUMMARY OF FINANCIAL EFFECIENCY TESTS

Table 23 Summary of financial efficiency tests

	Project year									
Project year	1	2	3	4	5	6	7	8	9	10
Capacity utilization	70%	80%	90%	100%						
Financial ratio in %										
1. Gross profit : Revenue	6%	19%	29%	38%	41%	43%	47%	52%	56%	60%
2. Net profit : Revenue	4%	12%	19%	25%	26%	28%	31%	34%	36%	39%
3. Net profit : initial investment	1%	4%	7%	10%	10%	11%	12%	13%	14%	15%
4. Net profit : Equity	3%	9%	16%	23%	24%	26%	28%	31%	33%	36%
5. Gross profit : Initial investment	2%	6%	10%	15%	16%	17%	19%	21%	22%	24%
6. Operating costs : Revenue	25%	23%	21%	19%	19%	19%	19%	19%	19%	19%

ANNEX XV CALCULATIONS OF PAYBACK PERIOD

Table 24 Calculation of payback period"000"

	An	nount Paid Back	Total		
Year	Net Profit	Depreciation	Total	investment	End of year
1	5,576	37,940	43,516	714,263	-670,747
2	19,703	37,940	57,643	236	-613,340
3	34,087	37,940	72,027	236	-541,549
4	48,745	37,940	86,685	236	-455,100
5	52,095	37,440	89,535		-365,565
6	55,532	37,340	92,872		-272,693
7	60,401	35,633	96,034		-176,659
8	66,816	32,215	99,031		-77,628
9	71,490	32,215	103,705		+26,077

ANNEX XVI CALCULATIONS OF NET PRESENT VALUE AT 17% D.F.

Table 25 Calculation of NPV at 17% D.F.

Project	Gross		Present value	Project costs				
year	Revenue	$1/(1+i)^{n}$ At	at 17%	Total	Operating	Total	Present value	
		17%		investment	costs		at 17%	
1	138,277	0.854701	118,185	714,263	34,261	748,524	639,764	
2	158,028	0.730514	115,442	236	35,634	35,870	26,204	
3	177,787	0.624371	111,005	236	37,006	37,242	23,253	
4	197,538	0.53365	105,416	236	38,379	38,615	20,607	
5	197,538	0.456111	90,099		38,379	38,379	17,505	
6	197,538	0.389839	77,008		38,379	38,379	14,962	
7	197,538	0.333195	65,819		38,379	38,379	12,788	
8	197,538	0.284782	56,255		38,379	38,379	10,930	
9	197,538	0.243404	48,082		38,379	38,379	9,342	
10	197,538	0.208037	41,095		38,379	38,379	7,984	
Total			828,406				783,337	

A. Benefit- cost ratio at 17% D.F. = 1.06

B. NPV at 17% D.F. = 45,069,000 Birr