Management of Finance

MBA 7005

Executive summary

Capital budgeting process is a critical aspect of any of the organization because long term survival of the company is mainly based on the expansion plan and capital projects that a company implements. For all of the capital project needs to be more carefully analyzed because investment of a capital project is too high and if a project is not successful, then, the entire Company has the biggest problem in recovering on these capital amounts. Finance plays a major role in evaluating the capital project of any company and gives recommendations for making it success. XYZ City complex is a big project of the Colombo city and it has done by the ABC Development PLC which is a subsidiary of ABC bank. The Report has illustrated the key areas to evaluate the success of the project such as preparing the five year financials with cash flows, analyzing of net present value, internal rate of return, sensitivity analysis. Further, the report has illustrated and calculated the cost of equity, cost of debt and weighted average cost of capital in order to evaluate the success of the above said project properly.

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List of Abbreviations

WACC - Weighted Average Cost of Capital

NPV - Net present value

CAPM - Capital Asset Pricing Model

IRR – Internal Rate of Return

ARR - Accounting Rate of Return

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Summary regarding to the ABC Development PLC.

ABC development is operating in the property development industry which is a key emerging sector in Sri Lanka. Main objective of the Company is to maximize the shareholder's wealth through efficient and effective utilization of property management and development. The Company has more than 10 years of experience in the property sector and it is a subsidiary of the ABC Bank PLC. Among of the properties, ABC Tower is the major operational property and it represents more than 75% sales in the Company. Both resident and for the business purposes, it uses the ABC tower and east tower is occupied only by the diplomatic persons. Due to emerging nature of the industry, the company currently plans to develop properties for shopping and living purposes and Nugegoda, Rajagiriya, Nawala etc as the main places to construct new apartments and shopping complex. (ABC development PLC, Annual Report, 2014/15)

XYZ Project Rajagiriya.

XYZ Complex is a multi-shopping complex which is constructing in Rajagiriya city area with three floors. The Management believes that this complex can be a well located building with three stories and more businesses can get support to expand their businesses in this shopping complex. With three stories, complex can attract more customers and business people daily. Since the easy access to the central city of the Colombo, more businesses have the best chance to locate their businesses in this shopping complex. Since the proper location and layout strategy, Company can increase their monthly property rental income significantly and increase the financial strength of the Company. The proposed multi shopping complex plan has three stories with 40 shopping malls.

Description	Total no of units	Area (sq.ft.)
Fist story	10	1800
Second story	15	1650
Third story	15	1650

Table 1 - Shopping complex of three stories

In order to determine the advantages of the locational strategy and its impact of the property development project, report has evaluated the surrounding analysis and following findings are found in this regard,

- Locate in the City of Colombo
- The Best public transport facilities.
- Lack of shopping centers for public.
- Schools and more government institutions locate near to the building area.
- Near to the Parliament high way road.

Section A

1.1 Critical factors to drive the proposed XYZ Project (10%)

Any of the Company needs to give more concern in the project management of a capital project since it has a big impact on the Company operations. In the XYZ project, ABC development plc needs to investment a significant amount and out of that 70% needs to be an equity investment. Other 30% needs to be financed from external sources. Management of the project needs to be more concerned on the following factors on the success of the XYZ shopping complex. (Alice & Cheng, 2004)

Degree of expertise in the field of property development

Since the ABC Development PLC does not have an expert knowledge and experience like key big player of the property development such as Blue Ocean, Nawalakota, Prime development, the Company needs to put more concern on this big project.

- Capacity and capability of the capital project handing

The Company currently has the best knowledgeable and experienced people to execute this big project in the Rajagiriya. Their consultancy and commitment will help to manage and minimize the risk of failure of the project.

- Impact of the stakeholders.

Since the significant investment put on the Rajagiriya project, it is more needed to concern on the impact of the stakeholders and satisfaction of their needs. Therefore, Company needs to think on ways of building up a proper communication system with them.

- Commitment of the top management

Top management has an influential power to the capital project and success of the project will mainly depend on the level of top management commitment. Therefore, the management needs to get their support to execute this project.

Section B

2.1 Five years' financial statements and cash flow statements of the XYZ project (20%)

Financial analysis is required determining the success of the project and its future sustainability. Summarized profit and loss of the project for five years are attached in the report and following assumptions have made in order to determine the rental income from the XYZ project. (Frank &, Peterson, 2013)

ABC Developmmet PLC now operates under 100% occupancy level & therefore as per the report, the occupancy of the XYZ project starts with 50% occupancy and it will increase as follows.

1st Year: 50% of presently sales.

2nd year: 15% will increase

3rd year: Another 15% increase of sales

4th year: Another 10% increase

5th year: 10% increase and occupancy level will reach to 100%

Description	XYZ project

Story type	1st and 2nd floor	First floor
Number of installments	30	10
Monthly rent	200,000	150,000

Table 2 - Monthly Rent & installments

Following table depicts the rental income based on the above occupancy levels.

Rent income	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Revenue	0	45,000,000	61,425,000	79,380,000	93,767,625	109,395,563

Table 3 - Monthly Rent & installments

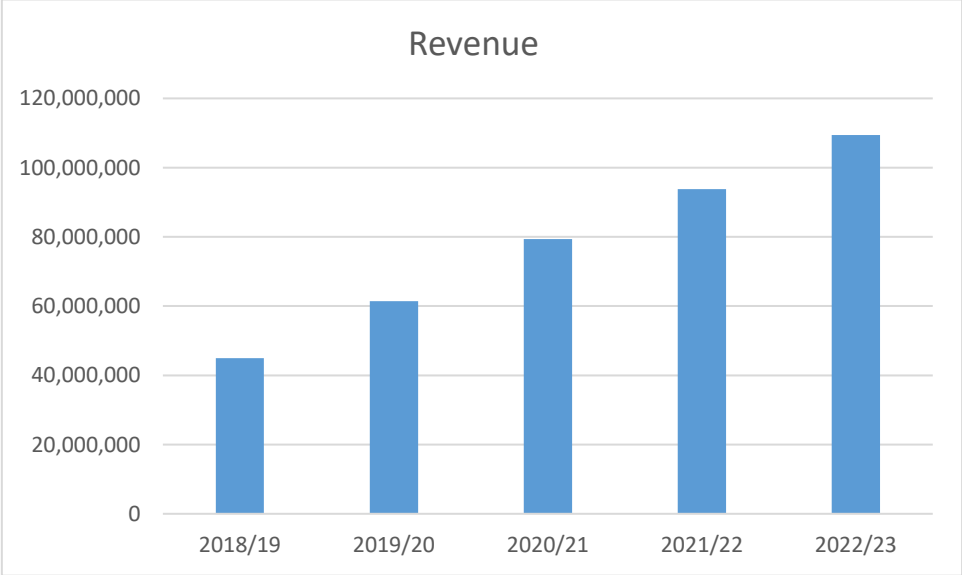


Figure 1 - the rental income based on the above occupancy levels

- It can be estimated that company needs to spend 35% from total revenue as a direct expense such as security, cleaning, maintenance etc.
- Monthly rent will be increased by 5% which is in lined with the countries inflation rate.
- 15% can be considered as a fixed cost and it also increased by 5% in every year.

Income Statement

Rs. Millions	Years 2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Rent income	-	45.0	61.4	79.4	93.8	109.4

Direct cost	-	(15.8)	(21.5)	(27.8)	(32.8)	(38.3)
Gross Profit	-	**29.3**	**39.9**	**51.6**	**60.9**	**71.1**
Other income	-	-	-	-	-	-
	-	**29.3**	**39.9**	**51.6**	**60.9**	**71.1**
Fixed cost	-	(6.8)	(7.1)	(7.4)	(7.8)	(8.2)
EBITDA	-	**22.5**	**32.8**	**44.2**	**53.1**	**62.9**
Depreciation	-	(8.7)	(8.7)	(8.7)	(8.7)	(8.7)
EBIT	-	**13.8**	**24.1**	**35.5**	**44.4**	**54.2**
Interest	-	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)
PBT	-	**12.3**	**22.6**	**33.9**	**42.9**	**52.7**
Income tax	-	(4.3)	(7.4)	(10.8)	(13.5)	(16.5)
PAT	-	**7.9**	**15.2**	**23.1**	**29.4**	**36.2**

Figure 2 -Income Statement

Since the project has a profit from the beginning, it can be noted that this project will be a more profitable project for the ABC Development PLC. Further, report has evaluated the cash flows of the project because cash flow analysis is an indication to evaluate the project finance cost and liquidity state of the project. Since the Company is a geared company and it has debt to equity mix in financing, the report uses 70:30 ratios to get finance for the project and through 5 year debentures, the project gets debt amount to finance. Following depicts the cash flow of the Company after considering the taxes, loan repayment etc.

Cash Flow Statement

Rs. Millions	*2017/18*	*2018/19*	*2019/20*	*2020/21*	*2021/22*	*2022/23*
Cash Inflows						
Rent income	-	45.0	61.4	79.4	93.8	109.4
Total Cash Inflow	**-**	**45.0**	**61.4**	**79.4**	**93.8**	**109.4**
Cash Outflows						
Direct cost	-	(15.8)	(21.5)	(27.8)	(32.8)	(38.3)
Fixed cost	-	(6.8)	(7.1)	(7.4)	(7.8)	(8.2)
Income Tax Paid	-	(4.3)	(7.4)	(10.8)	(13.5)	(16.5)
Total Cash Outflow	**-**	**(26.8)**	**(36.0)**	**(46.1)**	**(54.2)**	**(63.0)**
Net Operating Cash Flow	**-**	**18.2**	**25.4**	**33.3**	**39.6**	**46.4**
Capital Expenditure						
-Investment	(58.0)					
Total Capex	**(58.0)**	**18.2**	**25.4**	**33.3**	**39.6**	**46.4**
Financing cash flows						
-Debenture issue (30%)	17.4					
Loan Repayment						

Redeem	-	-	-	-	-	(18.3)
Interest	-	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)
Opening cash balance	-	(40.6)	(5.8)	43.4	108.5	186.2
Closing cash balance	**(40.6)**	**(5.8)**	**43.4**	**108.5**	**186.2**	**259.3**

Table 4 - Cash Flow Statement

According to the above cash flow analysis, it can be noted that the company has the best cash inflow and positive cash operating balances from the beginning of the project. Therefore, XYZ project is a viable project in this regard.

Section C

3.1 Unsystematic and systematic risk factors and the XYZ project (10%)

Unsystematic risk can be called as residual and specific risk factors where the main feature of this risk is to be diversified and spread the risk in the asset portfolio. Where-as systematic risk cannot be diversified in the existing asset portfolio and it is mainly reflecting in the stock market with being uncertain. Since, the most of the listed entities are in alerting on the systematic risk in the process of risk calculating and taking decisions for mitigate the risk. In the evaluation of the XYZ project, the systematic risk can be considered in calculating the beta factor to determine the cost of equity. (Frank &, Peterson, 2013)

Section D

4.1 Cost of Equity based on the CAPM theory (15%)

Cost of equity is the return required by the equity shareholders and they have required a higher return than cost of debt due to higher risk bearing by them. Among these method, it can calculate the cost of equity through capital asset pricing model as the most rational method to calculate cost of equity. The Formula to calculate the cost of equity is as follows.

Cost of equity = Risk free rate of return + Market beta value (Risk premium)

Risk free rate of return is the return that can expect without any market risk, in here, the investor can 100% guarantee to get pre agreed return without any problem. One-year treasury bill rate can be considered as a risk free rate of return and rate existed in 2016 September at 10.11 can be considered in this calculation. (Alice & Cheng, 2004)

Beta value: Beta factor reflects the systematic risk and it defines the market risk of the asset portfolio and especially risk attached with stock market. Therefore, ABC development PLC can use the Beta factor of them and report finds out the beta factor to be 2.05 through following.

CSE Beta Value

COMB-N-0000	COMMERCIAL BANK OF CEYLON PLC	1.82	2.01
COMB-X-0000	COMMERCIAL BANK OF CEYLON PLC	1.82	2.01
COMD-N-0000	COMMERCIAL DEVELOPMENT COMPANY PLC	0.73	0.57
CONN-N-0000	AMAYA LEISURE PLC	1.11	1.01
CPRT-N-0000	CEYLON PRINTERS PLC	-0.75	-0.34
CRL-N-0000	SOFTLOGIC FINANCE PLC	3.21	2.93
CSD-N-0000	SEYLAN DEVELOPMENTS PLC	2.05	1.82
CSEC-N-0000	DUNAMIS CAPITAL PLC		2.85
CSF-N-0000	NATION LANKA FINANCE PLC		1.28
CTBL-N-0000	CEYLON TEA BROKERS PLC		1.01

Table 5 -CSE Beta Value

Risk premium: Amount market return which is more than the risk free rate of return is considered as the risk premium. This premium can be calculated by deducting risk free rate from market return. Based on the share price movements in last five years, it can be noted that the market return of the ABC Bank PLC was 12 & therefore, the risk premium is as follows.

Risk premium = Market return – Risk free rate of return

Risk premium = 12 – 10.11

= 1.89

Cost of equity through Capital asset pricing model is as follows.

Cost of equity	=	Risk free	+	Beta(Risk premium)
	=	10.11	+	2.05(12-10.11)
	=	10.11	+	3.8745
	=	13.9845		

Section E

5.1 Weighted average cost of capital (15%)

If it considered an average cost that the company needs to pay for its finance providers, it can be considered as weighted average cost of capital. This weighted average cost of capital can be considered as the company's cost of capital. Since the ABC Development is a geared Company and it currently uses 70:30 equity debt mix, new project also can finance through this rate. Therefore, 58 million needs to be financed as follows.

From Equity – 40.6 Mn
From debt – 17.4 Mn

Following table can illustrate the calculation of the cost of Debt

Issue year	Cash inflow/ (outflow)	Amount of tax	Amount after tax	NPV @ 12%	NPV @ 5%
0	950	-	950	950	950
1-5	(120)	(36)	(84)	(302)	(363)
5	(1,000)	-	(1,000)	(567)	(783)
				81	(196)

Table 6 - the cost of Debt

In order to obtain the cost of debt, it can be considered the rate exists at the net present value 0 situation. This means that 9.8% is the cost of debt for the evaluation of this project.

After incorporating of the debt to equity ratio, weighted average cost of capital can be considered as follows.

Weighted average cost of capital

= (13.98*0.7) + (9.8% *0.3)

= 9.79% + 2.94%

= 12.73%

Section F

6.1 NPV, IRR, ARR and Payback period of the XYZ project (15%)

In the capital budget evaluation process, the management uses several key indications to illustrate the success of the project. Among of key indication, net present value, accounting rate of return, internal rate of return, payback period are major points. These indications are more critical in the process of making decisions in relation to project fiancé and attracting external investors to the project. (Alice & Cheng, 2004)

6.1.1 Net present value (NPV)

Discounting the net cash flows by weighted average cost of capital, it can gain the net present value amount of the project. Following depicts the net present value of the XYZ project of the Company.

Rs. Millions	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**
Net Operating Cash Flow	**(58.00)**	**18.16**	**25.40**	**33.32**	**39.61**	**46.44**
DF @ 12.73%	1.0000	0.8871	0.7869	0.6980	0.6192	0.5493
DCF	(58.00)	16.11	19.99	23.26	24.53	25.51
NPV	**51.39**					

Table 7 - Net present value (NPV)

As per the above calculation, it can be noted that the company will be able to get 51.39 positive amount as net present value and in regarding to property development, this kind of result will reflect more positive value to implement a project.

6.1.2 Project payback period

Amount of period that can get to recover the initial investment is considered as project payback period, in regarding to XYZ project, amount of duration takes to cover 58 million is the payback period.

Year	Net operating Cash flow	Accumulated cash flow	Months
0	(58.0)	(58.0)	
1	18.2	(39.84)	12
2	25.4	(14.4)	12
3	33.3	18.88	7
4	39.6		
5	46.4		
Payback period in months			31

According to the above payback period calculation, it can be noted that ABC Development can be recovered their initial investment within 31 months rounding to 2.5 years from starting the operations. Therefore, it can be concluded that the XYZ project is more profitable in regarding to the cash flows. (Alice & Cheng, 2004)

6.1.3 Internal rate of return – XYZ project

Rate at which the net present value becomes zero is considered as internal rate of return. If the internal rate of return is more than the weighted average cost of capital, then. the project is profitable. Following table depicts the internal rate of return of the XYZ project.

Rs. Millions	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**
Net Operating Cash Flow before Interest	(58.0)	18.16	25.40	33.32	39.61	46.44
IRR	**39.15%**					

Table 8 - the internal rate of return of the XYZ project.

According to the above table, it can be noted that Internal rate of return is 39% and the company weighted average cost of capital is around 12% then it can be concluded that the project is more profitable in terms of its internal rate return.

6.1.4 Accounting rate of return – XYZ project

This may calculate the amount of return generated by using the initial investment and this does not use the discounted cash flows.

Accounting rate of return	Investment	Earning before I & T
0	(58.0)	
1		13.80
2		24.14
3		35.46
4		44.43
5		54.20
Accounting rate of return		**31.73%**

Table 9 - Accounting rate of return

According to the above table, it can be considered as the project has 31% accounting rate of return and it is more profitable project to be executed by the ABC Development PLC. Following table depicts the summary of project feasibility.

Description	#
Accounting rate of return	31.73%
Net present value	51.39 Mn

Internal rate of return	39.15%
Payback period	31 months

Table 10 - the summary of project feasibility

As per the results, it can be noted that the XYZ project is more feasible in terms of any aspect such as profitability, discounting value, cash flows etc.

Section G

7.1 Sensitivity analysis (15%)

10% monthly rent sensitivity and scenario analysis of the XYZ Project

Monthly price movements and its impacts on the project. This mainly reflects the results of output as a basis of input uncertainties such as variation of number of installments, amount of monthly rent etc.

10% sensitivity of monthly rent

P & L (Profit after tax)					
Millions	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**
As per projections	7.9	15.2	23.1	29.4	36.2
10% of revenue sensitivity	6.3	12.9	20	25.6	31.8
Cash flow (Net operating cash flow)					
Millions	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**
As per projections	18.2	25.4	33.3	39.6	46.4
10% of revenue sensitivity	16.6	23.1	30.2	35.9	42

Table 11 - sensitivity of monthly rent

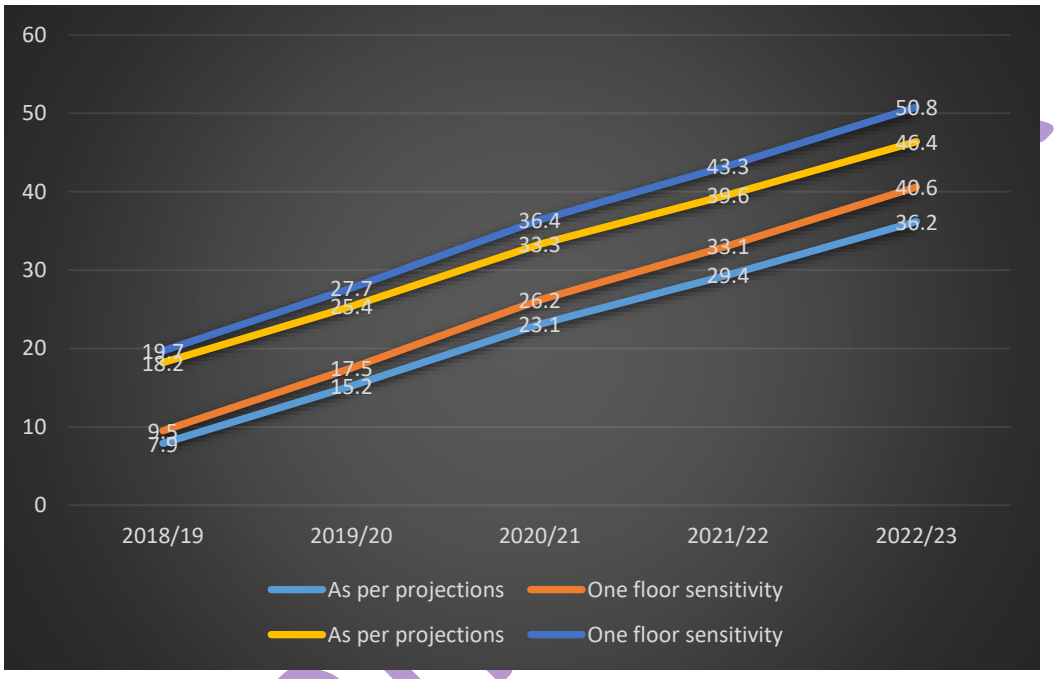
As per the above analysis, it can be noted that the sensitivity analysis is not much have adverse impact on the business results & therefore, XYZ project is a viable project in this regards.

10% of number of installments – Sensitivity

P & L (Profit after tax)					
Millions	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**
As per projections	7.9	15.2	23.1	29.4	36.2

One floor sensitivity	9.5	17.5	26.2	33.1	40.6
Cash flow (Net operating cash flow)					
Millions	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**
As per projections	18.2	25.4	33.3	39.6	46.4
One floor sensitivity	19.7	27.7	36.4	43.3	50.8

Table 12 - number of installments – Sensitivity



It can be noted that there is no uncertainty relating to the number of installments. Since, all the direct and indirect cost are relating to the revenue and then the uncertainty of the profit and cash flows are minimal.

7.2 Scenario analysis of XYZ project

Through considering of the alternative scenarios of the future events and calculating the impact of to the project, it can be considered as scenario analysis. (Frank &, Peterson, 2013)

Scenario 1: If the monthly rental amount decreases by 20% and reduces the number of installment by 10 in second and third stories and increases the variable cost up to 40%.

P & L (Profit after tax)					
Millions	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**
As per projections	7.9	15.2	23.1	29.4	36.2
Adverse scenario	0.5	4.4	8.7	12.1	15.8
Cash flow (Net operating cash flow)					
Millions	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**
As per projections	18.2	25.4	33.3	39.6	46.4
Adverse scenario	10.7	14.6	18.9	22.3	26

Table 13 -Scenario analysis of XYZ project

The Project will not be adversely impacted under the above mentioned situations and it is still in a profitable situation therefore it can be concluded that the XYZ project is much profitable and it has a long term sustainability with the ability to add value to the ABC Shareholders in long term.

Recommendation & conclusion

The Report is considered the XYZ project in the Rajagiriya and its financial viable in terms of several financial indications. As per the result of the NPV, IRR, ARR, Payback period, it can be noted that the project is financially viable and under the higher uncertainty levels such as decrease the number of installments, increase the direct cost also project deliver the profitability output. Therefore, XYZ project is a profitable and it can add value to the existing project. In order to make success in the project management, it needs to get the commitment of the top management while getting the proper approval from government regulatory bodies & time to time evaluation of the environmental factors and adopting to them accordingly with making sure that the proper knowledgeable and experienced people are used within the project execution here.

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