Assignment 3 – Task 2 – Strategic Financial Management

MBA Programme LSIB

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1. Investment appraisal techniques

Proper evaluation of a new potential investment as well as the adequate selecting of its financing sources are fundamental for building a successful and sustainable organizations. According to Sangster (1993), the use of investment appraisal techniques in general, and the ones based on advanced discounted cash flows in particular, are increasingly used by companies.

1.1. Evaluating the different techniques for investment appraisal

In the following, each investment appraisal technique is defined. The advantages and limitations of each are outlined:

- Payback Period (PP)
  - According to Bragg (2017), the PP is the time required for the amount invested in an asset to be repaid by the net cash flow generated by the asset.
  - Advantages:
    - Easy to understand
    - Provides an important information
    - Quantitative
  - Limitations:
    - Does not provide a quantitative information regarding cash flows
    - Is completely insensible to time value of money. This can be mitigated by using the Discounted PP (DPP)
    - Reflects only a single aspect of profitability
- Account or Average Rate of Return (ARR)
  - This criterion is the ratio between the Average profit after tax (PAT) by the initial amount of investment. The ARR is then compared to a cut-off rate.
  - Advantages
    - Easy to understand and to implement
    - Provides an information regarding the final profit based on the initial investment
  - Limitations
    - Is completely insensible to time value of money
    - Gives a relative information regarding profits and not an absolute one
- Net Present Value (NPV)
  - According Gallo (2014), NPV is based on the simple principle that money that you have in hand now is more valuable than money you collect later on. In fact, it consists in translating all the present and future cash inflows and outflows in terms of present value.
  - Advantages:
    - Takes into account the time value of the money
    - Quantitative
    - Widely spread and used

- Limitations
  - Relatively difficult
  - Does not provide an information regarding whether the project with highest NPV is the also the most doable

- Internal Rate of Return (IRR)
  - According to an article published by McKinsey website and written by Kellerhet and MacCormack (2004), three quarters of CFOs almost always use IRR when evaluating capital projects. The IRR is defined as the rate of return corresponding to a null NPV. In order to be selected, an investment should have an IRR higher than the discounting rate of return.
  - Advantages:
    - Takes into account the time value of the money
    - Widely spread and used
    - Gives an indication regarding the profitability of the project
  - Limitations
    - Involves relatively complex calculations
- Profitability Index (PI)
  - This technique is also called the Benefits-Cost ratio. It's the ratio between the present value of future cash flows and the present value of initial investment.
  - Advantages
    - Takes into account the time value of the money
    - Relevant and consistent
  - Limitations:
    - Provides a relative information instead of an absolute quantification
    - Relatively complex to evaluate

1.2. Alternative sources of financing

1.2.1. Internal sources

According to Arbuckle (2018), these sources are particularly important for small business where external lenders are usually skeptical. Example of it are:

- Retained profits
- Sales of assets
- Reduction in working capital

1.2.2. External sources:

According to Root (2018), before deciding to externally finance their investments, executives should examine carefully 4 aspects: preserving the company resources, growth, ownership and interest.

1.2.2.1. Long term

- Equity share: Organizations may issue shares in the market for potential investors that represent in this case the future shareholders.
- Debentures
- Long term loan

1.2.2.2. Medium term

- Leasing and hire purchase
- Medium term loan

1.2.2.3. Short term

- Bank overdraft
- Trade credit
- Debt factoring

1.2.3. International financial risks:

According to Whitaker and Martinez (2018), risk management should be based both on global headlines and the local events that have a direct impact on their business. Managing risks is a vital skill that every executive board should consider very seriously. This is particularly true in the case of international investment where additional risks are added to conventional ones. Examples of risks related to international investment are:

- Change in foreign current rates. Companies decide generally to hedge the funds in order to avoid the devaluation of the engaged money.
- Change in the interest rate price.
- Change in the purchasing power.
- Incompatibility between the company culture and the culture of the new market.
- Political and economic stability.
- Growth in overseas markets
- International accounting standards

2. Investment appraisal of different scenarios

The current section is an actual application to the investment appraisal techniques presented previously. The application case consists in studying 3 different options of investments offered to ABC Ltd. This organization is a clothing company based in the UK for the last decade. In the framework of its international expansion plan, the company executives should make a choice between 3 different countries to invest in. These countries are USA, France and Switzerland.

The average spot rate table is reported in the following table:

Average Spot Rate	*Yr. 1*	*Yr. 2*	*Yr. 3*	*Yr. 4*	*Yr. 5*	*Yr. 6*
USD ($)	2.10	2.20	2.30	2.10	2.25	2.50
Euro (€)	1.80	1.90	2.00	2.10	1.95	1.90
Swiss Francs (CHF)	1.00	1.20	1.40	1.20	1.30	1.40

Table 1 : Average Spot Rates according to PwC (2016)

The inflation among the countries of interested is reported in the following table:

Inflation %	Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	Yr. 6
USA	1.2%	2.2%	2.0%	2.0%	2.0%	2.0%
France	0.3%	1.2%	1.2%	1.2%	1.2%	1.2%
Eurozone	0.2%	1.3%	1.4%	1.4%	1.4%	1.4%

Table 2 : Inflation according to PwC (2016)

The following table reports the discounted cash flows (DCF) during the 6 years. DCF0 corresponds to the initial investment. These DCF are computed for each year based on:

- Based on the information provided for each scenario
- The average spot rate of the considered country w.r.t. GBP
- The local inflation of the considered country

The predicted financial performance for each scenario is then evaluated through the following indicators that are reported in the same table:

- NPV is the net present value
- IRR is the internal rate of return
- PP is the payback period in years
- DPP is the discounted payback period in years.

Country	DFC0	DCF1	DCF2	DCF3	DCF4	DCF5	DCF6	NPV	IRR	PP(yrs)	DPP(yrs)
USA	-232 000	72 096	58 246	45 420	54 504	40 365	23 491	62 122	19%	4	5
France	-240 000	6 082	12 185	5 071	-494	6 759	8 322	-202 075	-30%	>6	>6
Switzerland	-230 000	112 151	59 554	-21 767	52 813	32 200	-16 354	-11 402	7%	4	>6

Table 3 : DCF and financial performance indicators

2.1. Scenario 1: USA

The investment scenario in the USA can be summarized as following:

Cash type	Cash label	Value
outflow	Running expenses per annum	£210000
inflow	Expected revenue per annum	$700000
outlow	Approval fee per annum	£22000
outlfow	Additional fees	£0

Table 4 : USA case

The DCF evaluated for the USA show a positive sign during the 6 studied years which is a positive performance. The DPP is indicating 5 years which is a fair common performance that is generally accepted by executives. The NPV shows a positive value after 6 years which is a major positive performance indicator. This good performance is validated by an IRR valuing 19% which is clearly higher than the rate of return of 10% used for discounting the cash flows. Consequently, investigating in the USA seems to be a good opportunity that should be considered.

2.2. Scenario 2: France

The investment scenario in France can be summarized as following:

Cash type	Cash label	Value
outflow	Running expenses per annum	£190000
inflow	Expected revenue per annum	€450000
outlow	Approval fee per annum	£25000

outlfow	Additional fees : Royalty fee, once	£25000

Table 5 : France Case

Excepting the fourth year, all the DCF generated yearly are positive. After examining the other indicators, the main conclusion is that the yearly generated DFCs are not enough to generate a positive income upon 6 years. This is outlined first by a heavily negative NPV and IRR. DPP and even PP show that 6 years are not enough to recover the initial investments. Consequently, France is clearly not a good option for international expansion. A closer analysis of the numbers show that this failure is due 2 main reasons:

- The € currency is relatively weal by comparison to £ in the upcoming 6 years
- The revenues generated in France are not enough to counter the weak currency. In fact, even if the € and the $ are of the same order by comparison to £, the USA performs much better than France thanks to a yearly income that is about 33% higher when both are reported to the £ currency.

2.3. Scenario 3: Switzerland

The investment scenario in Switzerland can be summarized as following:

Cash type	***Cash label***	***Value***
outflow	Running expenses per annum	£200000
inflow	Expected revenue per annum	CHF 380000
outlow	Approval fee per annum	£30000
outlfow	Additional fees : inspection cost, every 3 years	£25000

Table 6 : Switzerland Case

The Switzerland case study is particularly interesting because it shows concretely the importance of considering the time value of money when evaluating the payback period. In fact, the PP indicator shows that the breakeven point is reached after 4 years of operating in Switzerland whereas the DPP shows that even after 6 years the breakeven point is not reached. This is confirmed by the NPV value that is negative and the IRR of 7% that is lower than the rate of return of 10% considered in the current investment study. Consequently, Switzerland option is not the best one from a pure financial point of view.

3. Assessing and mitigating risks related to international investment

3.1. Evaluating the different techniques

A company may face 3 different cases:

- Certainty: All the events and elements are under control. There is no level of risk associated to this situation
- Risk: things are not fully under control. There are several elements that can be at most estimated or barely predicted. The definition of risk is often associated to the variability that is likely to occur in the quantity of interest
- Uncertainty: The level of control is very low or even nonexistent. This situation corresponds to the maximum level of risk and should be avoided when possible or handled with extreme care when faced

The common point between the above situations is the risk component. In fact, all situation can be represented by a given level of risk. Business risks may be divided into 2 groups:

- Systematic risks
  - This corresponds to the situations when risks have rational reasons that can be understood
  - Examples
    - Market risks
    - Interest rate risks
    - Purchasing power risk
    - Technological
    - Financial
- Unsystematic risks
  - They are more specific to a given business instead of concerning the market as a whole
  - Examples:
    - Business: increase in the cost of raw materials
    - Operational
    - Reputational
    - Financial: Revenues are not enough to cover current and non-current liabilities
    - Managerial: Lack of management skills

Risk management should be a dynamic process that is performed by executives continuously through time. In fact, by definition risk is time dependent, hence managing it in a static manner should be definitely avoided. The following risk management tools can be used and updated in a periodic basis over time:

- Risk management matrix or impact probability grid
- Traffic light system
- Financial performance ratios
- Risk modeling tools
  - Beta ratio. According to Mirzayev (2018), a Beta of a company is a measure of its volatility.
  - Statistical tools for assessing variability.
  - Weighted average cost of capital (WACC) and capital asset pricing model (CAPM).
- Investment assessment techniques

Once the risks are defined and assessed, several management solutions are available in order to mitigate them:

- Consultancy of local experts of the political and environmental status and future potential evolutions. According to Srinivasan (2014), management consultancy is a coveted aspiration for management professionals.
- Subscribe to the adequate insurances
- Close monitoring of the evolution of the financial performance indicators in order to minimize the financial risk. This risk consists mainly in having a high level of need of funding for operating by comparison to current working capital

3.2. Application to ABC Ltd case

In the current, the above presented tools for assessing and mitigating risks are applied in the case of ABC Ltd and its international expansion investment in the USA. Let's focus mainly on the risk management matrix reported below. According to Vatanpour, Hrudey and Dinu (2015), the risk

management matrix is a widely accepted, semi-quantitative tool for assessing and setting priorities in risk management. Risks are assessed in the risk management matrix by using the following conventions: very low to very high are respectively assessed from 0.2 to 1 marks.

ID	*Risk name*	*Description*	*Mitigate*	*Contingency*	*Impact*	*Possibility*	*Score & Priority*
1	Currency	Change in the average spot rate of US $	Consult financial specialists of US $	Prepare a strategy for increasing prices in $ of the units sold in case if US $ decreases	1	0.8	0.8
2	Power	The purchase power of Americans	Consult financial specialists of the local inflation and deflation in the USA	Predict a margin the final price per units sold that can be fine-tuned based on the evolution of the purchasing power in the USA	1	0.7	0.7
3	Incompatibity	ABC products are not compatible with American standards	Study very deeply the American stadards and perform all the required certifications before commercializing the goods	Predict a manufacturing budget for producing new clothes in emergency that will be compatible with the American standards	1	0.3	0.3
4	Brand	ABC brand is not well known in the USA	Perform a market research regarding the ABC brand in the USA and perform marketing action accordingly	Predict budget for additional marketing campaigns to be performed if needed	0.8	0.5	0.4
5	Quota	American importation politics especially with the current	Consult local and international lawyers in commerce and subscribe to	Activate the adequate insurances	1	0.4	0.4

		government established since 2017 until 2021	adequate insurances				

Table 7 : Risk Management Matrix

All the reported risks correspond to high impact on the operating business. The most important risk is the one with ID valuing 1. It corresponds to the evolution of the $US by comparison to £ currency. The purchasing power is also an important risk as reported. The others have also a important impact but since their probability to happen is relatively weak, their score is less but they should be monitored with particular care. This risk management matrix should be updated continuously in order to monitor risks in a dynamic manner.

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