Guildhall College London

FE3048 - Corporate Finance and Governance

Case Study:

NPV and ENPV

Module:

Corporate Finance and Governance

Programme:

BA (Hons.) Business Administration

Module Tutor(s):

Gratiano Paul Mohindru

Module Advisor
Nazim Uddin

Field
FEA

Case Study

NazGrat plc, which operates a chain of restaurants, owns a 10 year lease on a Victorian building in Tower Hamlets. A local organisation has recently offered to buy the lease for a single immediate payment of £50,000. However, the company is considering a plan to open the building as a restaurant.

A firm of architects has recently submitted preliminary development proposals for the restaurant, for which they are to be paid a fee of £10,000. They put the total cost of the building work needed to convert the site for restaurant use at £65,000. The management of NazGrat plc face too many other demands on their time to be able to undertake and manage these buildings works themselves. However, the architects would be prepared to do so, for a further fee of £22,000.

NazGrat could equip the new restaurant with a stock of furniture and fittings recently acquired at a cost of £24,000 from another proposed development, which has been abandoned. The company estimates that the current resale value of this stock is £12,000.

If the restaurant is opened, its turnover and operating costs will depend on how large a local customer base it manages to build up. The company's estimates of the probabilities of the restaurant providing to be (i) 'popular', (ii) 'moderately popular' and (iii) 'unpopular' are shown in the following table, together with associated annual gross cash flows and operating costs:

Outline	Probability	Gross cash flow (£) p.a.	Operating costs (£) p.a.
Popular	0.35	89,000	55,000
Moderately popular	0.25	70,000	39,000
Unpopular	0.4	44,000	31,000

The cost of capital of the company is 13 per cent.

Required (1 of 2):

(a) Calculate the E(NPV) [expected net present value] of the restaurant project and, considering E(NPV) only, advise the Company as to whether the project should go ahead. **[20 marks]**

(b) Justify your reasons for the inclusion or exclusion of any of the above financial information into your E(NPV) calculation.. **[20 marks]**

“Critics of American business claim that U.S. managers rely too heavily on a few financial techniques to weigh major investment decisions. Calculation of discounted cash flows, internal rates of return, and net present values, say critics, is inherently biased against long-term investments. But according to the authors, DCF procedures can work if the management sets realistic hurdle rates, and carefully examines its assumptions. Decision makers need to consider three critical issues: the effects of inflation, the different levels of uncertainty in different phases of a programme, and management's own ability to mitigate risk.” (Hodder and Riggs, 1985)

“It has long been recognised that the recognition of risk is an important component in capital budgeting decisions. The future is uncertain and investment appraisal techniques that fail to recognise this fact will almost certainly lead to incorrect conclusions and erroneous recommendations.” (Brookfield, 1995)

“In a longitudinal survey of capital budgeting practices of large UK companies between 1975 and 1992, substantial increase in the usage of discounted cash flow (DCF) and risk appraisal techniques were reported. Despite the increased usage of the more theoretically sound discounting techniques, several writers in both the UK and US have claimed that companies are underinvesting because they misapply or misinterpret DCF techniques. It has been asserted by several writers that firms are guilty of rejecting worthwhile investments because of the improper treatment of inflation in the financial appraisal. Many firms are understating NPVs and IRRs because of the incorrect treatment of inflation and the use of excessively high discount rates. Concern has also been expressed by various commentators that many companies are failing to invest in advanced manufacturing technologies (AMT) as fully as they should. Financial appraisal techniques have been cited as a major reason for the under-investment in new manufacturing technology. DCF procedures should not be ignored or relegated in importance merely because they might be used incorrectly. Instead, decision-makers should recognize potential problems and be careful to ensure that the financial appraisal is performed correctly.” (Colin and Mike, 1986)

“In a world in which information is not costlessly and symmetrically available to all economic agents, corporate project choices do not abide by the golden rule that all positive NPV projects should be accepted. In a sense, this is somewhat unsettling because it is difficult to prescribe simple rules for managers, and there has been little normative research into optimal capital allocation policies in different types of informationally constrained environments. However, the contemporary research highlights the pitfalls of policy-oriented discussions about corporate investment behaviour and managerial compensation packages that rely on the prescriptions of the traditional, symmetric-information paradigm of capital budgeting and financing. The research done to date indicates that many interesting things can happen under asymmetric information, none of which may be irrational, but some of which could be deleterious to the shareholders' welfare.” (Thakur, 1993)

Textbooks typically introduce Discounted Cash Flow (DCF) techniques by showing the E(NPV) of a hypothetical project calculated when we are given: a series of net annual cash flows over the project's life; an initial capital outlay and a discount rate. We have no access to the future – both of these considerations mean that investment appraisal in real life takes place under conditions of uncertainty.

Required (2 of 2):

In the context of the above quotations, critically discuss the Expected NPV or E(NPV) as a basis for investment appraisal. **[60 marks]**

Sources:

- Hodder, J.E. and Riggs, H.E (1985) 'Pitfalls in Evaluating Risky Projects' *Harvard Business Review*, Vol. 63, Iss. 1; p. 128.
- David, B (1995) 'Risk and capital budgeting: avoiding pitfalls' *Management Decision*, Vol 33, p.56
- Drury, C and Mike, T (1997) **'**The misapplication of capital investment appraisal techniques' *Management Decision,* Vol 35, p. 86.
- **T**hakor, A.V (1993) 'Corporate investments and finance' *Financial Management*, Vol 22. p 135

GUIDANCE NOTES:

You should carry out an individual assignment, not more than 3000 words and it should be word processed. It should follow the contents outlined in the marking scheme appended here. Pages should be numbered, and the report should be divided into sections, each with a heading and number. The contents page should show the headings for each section and the page number of the section.

This individual assignment must show cohesion in analysis and development. It must be your own work with supporting evidence from the literature appropriately acknowledged. Also a match between your in-text citation and bibliography must be maintained, consistent with Harvard style referencing.

Submission of report:

You should obtain an Assignment Frontsheet to write your student number on the front cover (not your names), and submit on the due date. Please note that no extension to this date is permitted by College regulations, so it is imperative that you plan your work to avoid a last minute rush, and allow plenty of time for unforeseen eventualities such as documents disappearing while trying to merge work, printers malfunctioning, etc. Assignment submitted after this date will not be marked.

Please note, plagiarism does not only exhibit lack of academic discipline BUT constitutes a serious offence!

CASE SPECIFICATION

Marks: 50%
Length: 2,500 - 3,000 words
Submission Date: Wednesday 12th November, 2008
Referencing: Harvard Referencing
Group/Individual submission: Individual

Candidates are expected to make practical use of the material learned in class; and to encourage the exploration of specified areas in depth and learning through the discussion of ideas.

Credit will be given for effective planning and organisation; research and referencing to sources; analytical ability; logical flow of ideas; relevance to the theme; depth of analysis; awareness of the strengths and limitations of the information produced; and good presentation.

	A	B	C	D	F
Abstract / Executive Summary	**5%**				
Introduction • Brief outline of the problem • Aims and purpose of the study • Background / Situational Analysis • Approach / Methodology	**15%**				
Analysis • Number of Points Given • Depth of Discussion / Coverage • Level of Understanding of Concepts, and Relevant Application • Sources and References Used	**40%**				
Conclusion & Recommendation • Flow of Discussion • Quality of Conclusion / Recommendation	**10%**				
Presentation • Report Structure • Formatting	**10%**				
Style: • Language (including grammar) • Clarity of expression	**10%**				
Referencing: • Use of Harvard System	**10%**				

Report Content and Format

There is no set format for the report, but we do expect it to contain the following:

- Title page
- Abstract / Executive Summary
- Contents page
- Introduction
- Main body and analysis
- Conclusion and Recommendations
- Reference list
- Appendices

Marks will also be awarded for the following:

* Presentation
* Style
* Referencing: use of Harvard System