

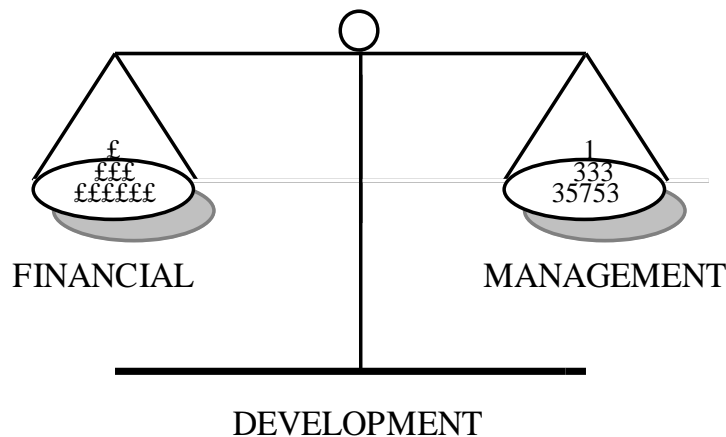
FINANCIAL MANAGEMENT DEVELOPMENT

Decision Making

Capital Expenditure

NO 331

INVESTMENT APPRAISAL



ONE OF A SERIES OF GUIDES FOR
FINANCIAL MANAGEMENT DEVELOPMENT

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This is one of a series of documents produced by David A Palmer as a guide for managers on specific financial topics to assist informed discussion. Readers should take appropriate advice before acting upon any of the issues raised.

INVESTMENT APPRAISAL

WHY APPRAISE INVESTMENTS?

An investment is the outlay of a sum of money in the expectation of a future return which more than compensates for the original outlay plus a premium to cover inflation, interest foregone and risk. The process of investment appraisal is designed to ensure that the right amount of money is invested in the right projects at the right time. Too little investment is, in the long term, more dangerous than too much. Too little leads to inefficiency and certain slow stagnation. Too much involves unacceptable levels of risk - but at least has the possibility of success. In the short term the converse is true - too little is the safer option. These conflicting needs have to be balanced

Investment Appraisal is therefore more than the identification and evaluation of suitable projects. It includes consideration of timing and the identification and balancing of risk.

There are two key processes in Investment Appraisal - The Project Level and The Corporate Level.

These broadly correspond to the activities carried out by the sponsoring manager and the review panel. It is important that these activities are separated. At the project level the requirement is for attention to detail and a clear but narrow view of the project and its objectives. At the Corporate level, a broad overview is required which is divorced from detail and able to compare alternative solutions objectively. The key activities within each process are considered in this paper.

PROJECT LEVEL

WHAT IS THE PROJECT?

Many projects fail to meet their objectives because they have been ill-defined. It is vital that the full implications of the steps necessary to achieve the benefits from the project are included in the proposal to be appraised. Otherwise there is the danger of buying a car with no engine - an apparent bargain as a form of transport but an expensive ornament. It is also possible to get carried away with enthusiasm and ruin a good project by swamping it with unnecessary bells and whistles. IT projects in particular are prone to this danger. What starts out as a simple Sales Invoice Processing System becomes a major marketing database linked to the cash records and controlling stock reordering. Since the project is never finished it never achieves even the limited original objectives. "Don't let the Best be the enemy of the Good".

There are five key steps:

1. Define the objectives of the project and the benefits.
2. Identify any dependencies.
3. Identify separately any incremental sub-projects and their benefits.
4. Cost each of the above separately.
5. Do not change the objectives unless there is an overwhelming need to do so.

WHAT ARE THE CASH FLOWS?

Only one thing matters in Investment Appraisal - **CASH**

It comes in three forms:

CASH IN
CASH OUT
CASH NOT IN OR NOT OUT

Project Appraisal must be ruthless about cash identification

CASH IN

From sales - normal or exceptional disposals or from faster cash collection

CASH OUT

Real Cash costs - not apportionments or allocations

CASH NOT IN OR CASH NOT OUT

These are cash flows avoided or opportunity costs. They need to be the next best alternative in terms of cost not unrealistic savings or incomes. Thus if a process is used to make a product with a profit of £10.00 a ton and this prevents another product with a profit of £8.00 per ton being produced, then the opportunity cost of using the process is £8.00 more than the cost of the process itself. There is a cost of the opportunity foregone. In the same way efficiency savings can only generate cash if the costs are truly avoided. Saving space costs at Head Office only reduces the rent if the Head Office is sold. Merely emptying the space achieves very little.

DCF EVALUATION

Once the cashflows have been established it is essential that cashflows arising in different time periods are discounted to allow them to be properly compared. The discounting of the cashflows and the use of Net Present Value and Internal Rate of Return are explained in a separate paper. In most organisations this procedure is carried out with the assistance of the Finance function using spreadsheet modules.

Operational Managers need to be aware that the timing of cash flows may have a dramatic impact on the value of a project to the organisation. For example, the delay in the opening of the Channel Tunnel meant that it will never recover the monies originally invested since all cashflows are one year later. The use of discounted cashflows is not an exact science but is used to help rank competing projects in order that a decision may be made to use money most effectively.

SENSITIVITIES AND ASSUMPTIONS

In any project proposal all numbers are open to doubt. Some, such as sales figures, may be subject to considerable uncertainty. Others, such as, start-up fees may be known in amount but potentially variable in time. In order for an informed decision to be made on the relative values of projects it is vital that an analysis be made of the impact of various risks on the proposal's Net Present Value and Internal Rate of Return.

This process takes two parts -

1. Identify all possible risks
2. Quantify their impact on the project.

The first step is vital. In many ways it forces the project champion to consider how the project may suffer from various risks and how they might be guarded against or controlled. For example, exposure to Foreign Exchange Rate movements can be reduced by taking out forward contracts, this increases the cost of the project but reduces the risk. Sales in the future are always subject to risk but this can be mitigated by agreeing volume and prices with known large customers in advances of starting the project. Again, this will impact on the project's profitability but may reduce risks to an acceptable level.

With the use of computer spreadsheets it is relatively easy to test small and large movements in the key variables to see how sensitive a proposal is to each variable. The proposal can then concentrate on those items which have a major impact on Net Present Value or the Internal Rate of Return and explain for the benefit of the reviewer the action taken to verify the underlying assumptions or to reduce the risk.

In some cases such an analysis will result in the reviewer requiring some form of control mechanism, or a go/no go decision point, once certain key assumptions have been tested. In some cases it may mean a delay in the project while a feasibility study is carried out. Whilst this may add to the cost this must be balanced against the risk of starting the project and then having to cancel it.

A good investment appraisal document will not only include the key assumptions and the sensitivity of the project to those assumptions but also a brief outline of the best and the worst case as well as a note of the total cost should the project fail to achieve its objectives and need to be cancelled (the crawl out cost).

CORPORATE LEVEL

Strategic Fit

This area always needs to be considered at the corporate level. At project level an investment may be justified on cost saving grounds whereas at corporate level it may be known that that stream of business is no longer to be supported and therefore the costs would be saved anyway. It is also not impossible for two separate projects to be justified on the basis of saving the same costs. There is a very real danger that both projects will be approved separately but that together they result in the organisation failing to make the required savings to justify both projects.

In addition it is necessary that new investments fit within the long term corporate strategy. It is not sensible to continue investing in the most efficient oil lamp when the corporate strategy has recognised the invention of electricity. Market perception, customer reaction, competitor reaction, producer reaction, supplier reaction, employee reaction, even Government reaction all need to be taken into account when considering major investments.

Suitable Funds Available?

It is perfectly normal for a large organisation to have more investment opportunities than it can reasonable fund in a given year. One of the key objectives of the investment appraisal system is to allow sensible allocation of the scarce resource - money! The level of borrowing for any one organisation is constrained by the stock market's perception of the risk involved and consideration of its gearing ratio.

One of the key roles of an investment appraisal committee is to consider whether borrowing for a particular project should be segregated from the normal borrowings. Thus an acquisition in America may be funded by dollar borrowing long term rather than through sterling overdraft funds. It is not just the total but the nature of funds available which should be considered. In some instances it may be possible for the project to be treated as stand alone with its own borrowings, sometimes in the form of leasing of the equipment. Joint Ventures and ad hoc subsidiary companies may well enable major projects to be funded without dramatically affecting the risk profile of the parent company. In the end result the key constraint will always be the cash available, most other constraints can be bought out.

Acceptable Risk?

It is feasible for a profitable project to be rejected on the grounds that the risk is so overwhelming that it would be unacceptable to the organisation. This does not mean that the project is rejected for ever it merely means that it is beyond the scope of the existing organisation. A fresh analysis will be required to consider whether the project can be partially undertaken or whether it is sensible to bring in joint venture partners etc. The existence of a profitable project itself is a saleable commodity. It should be used wisely, not squandered through being poorly presented.

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David is an experienced financial professional who has devoted his skills to management training in practical understanding and utilisation of financial information. A Graduate, Chartered Accountant, and Associate of the Institute of Taxation, he is also a Member of the Chartered Institute of Personnel and Development and has been an Ordained as a Deacon in the Catholic Church.

He has worked as a Financial Controller and Company Secretary in the Finance industry and as a Director of Finance and Administration in the Computer Services industry. Since 1990 he has conducted management development programmes for over forty major organisations including Arla Foods, Blue Circle, BP, CSC Computer Sciences, Conoco, Ernst & Young, Lloyds Bowmaker, Royal Mail, Unilever and Zeneca. He also runs programmes for the Leadership Foundation and the management teams at a number of Universities. International training experience includes work in Belgium and Holland for CSC, in Denmark, Kenya and the Czech Republic for Unilever, in Holland and the US for Zeneca, in Dubai for Al Atheer, in Bahrain and Saudi Arabia for Cable & Wireless.

He specialises in programmes in financial management for both tactical and strategic decision making. In addition he has run courses in acquisition evaluation (The Economist, Eversheds, Blue Circle and Hays Chemicals) and in post-acquisition management (Unilever). All training is specifically tailored to the needs of the organisation with the emphasis on practical applications to enhance profitability and cashflow. He has developed material for delivery by in-house personnel (Royal Mail, Lloyds Bowmaker and Conoco), computer based training packages (The Post Office, Unilever and BP), and post course reinforcement self-study workbooks (CSC and Zeneca). He has also produced a training video on Cashflow Management.

He is a prolific writer of case studies, role plays and course material. He has also published articles on the financial justification of training, financial evaluation of IT investment proposals, the use of Activity Based Costing and Customer Profitability statements, commercial considerations for consultants, the need for taxation awareness training for general managers, evangelisation and Christian business ethics.

Many of his generic documents are freely available on his website:

FinancialManagementDevelopment.com including papers on Charity Management.

In addition to his Diaconal work in the Church, he has held a number of voluntary positions including University, College and School Governor, Hospice Treasurer and Trustee of various charitable institutions. He continues to provide ad hoc commercial advice to several other charitable organisations. He has been married for over 35 years and has one daughter and three granddaughters.

This series of papers is designed to help managers by providing a basic understanding of key financial concepts to assist them in their work. It is provided at no cost since this knowledge is a Gift from God and thus to be shared (Matthew 10:8).