

# **Issues in Management Accounting AM 326**

**Enrolment No.: 00054178**

**Tutor: Dave Hobbs**

**Tutorial Group: Group 1 (Monday)**

George M. Zinkhan and F. Christian Zinkhan stated that since organization has limited resources, it is not possible to invest in all opportunities which are recognized or imagined. Once a set of promising project has been identified and investigated, it ought to reject some projects and invest in the others. Under this circumstance, the process of capital budgeting serves to structure the shape of the future of organization. However, the evidence drawn from prior capital budgeting case studies (e.g. Bower, 1972; March et al., 1988; Butler et al., 1993) shows that the strategic capital investment decision process is a complex, lengthy incremental process in which earlier activities and choices are crucial. Capital investment decision-making is not just an economy activity, it is also a political activity taking place within a wider context where groups and individuals have vested interests. Therefore a variety of capital budgeting methods have been proposed to assist manager who engaged in this important planning task. Alternatively, information such as tax policy, customer taste, competitor, technology, cash flow, environmental uncertainties, finance, interest rate, industry context, etc. are necessary to be considered in making decision in capital budgeting.

There is no doubt that the expenditures of an organization are made in respect of the expectation of realizing future benefit. Nevertheless, considerable care should be taken when organization approaches long-term asset investment. It is because cost commitments of the funds for this significant period of time associated with assets in long-term investment create risk for an organization, since they used up a large proportion of firm's resources and finance to take this action that is deemed as irreversible once it starts. Alternatively, they remain even if the asset doesn't guarantee the anticipated profits and benefits. As a result, the finance flexibility of the organization would be reduced. However, capital budgeting, which is a

systematic approach, to evaluate an investment in a long-term, or capital, asset. This is the fundamental concept of capital budgeting which is to focus on the long-term capital investment decision whether its increased cash flows will justify the investment in long-term asset. In order to understand the concept more clearly, the fundamental elements of capital budgeting analysis should be explicitly clarified. They are investment and return. The tools and the methods used in capital budgeting focus on the comparison between either investment and return or cash outflows and cash inflows associated with long-term assets. After discussing both the fundamental concept and elements in capital budgeting, now we are going to discuss the central concept of capital budgeting that is the time value of money. Because money can earn a return, its value depends on when it received. Thus the problem is, investment cash paid out now, and return cash is received in the future. Either the interest rate increase or the time period before receipt of cash increase will both lead the money received less valuable. Thinking about it in a simply way, that is £1 received in the future is not equal to £1 received today. In making investment decisions, accountant necessarily needs an equivalent basis to compare the cash flows that occur at different point of time.

For organization to make a more reliable and accurate prediction on whether to invest, it firstly ought to set up an objective strategic or long-term planning. Then begins with the specification of the objectives towards which future operations should be directed. The next stage is to identify a range of possible potential course of actions or strategies that might enable company's objective to be achieved. Those strategies should be examined in respect of suitability, feasibility and acceptability. When management has selected the strategic option that has the greatest potential for achieving the company's objective, long-term plan should be created to implement the

strategy. A long-term plan is an estimation of the cash inflows and cash outflows throughout the life of the investment. Then the long-term plans should be implemented which represents the board directions that top management intends to follow. The final stage is to compare the actual outcome and planned outcome followed by response to discrepancies.

For appraising the suitability, feasibility and acceptability of the strategic options, we need firstly to assume all cash flow occur at the end of certain period of time-usually a year. Base on this assumption, six different kinds of methods are introduced in assisting accountant considering long-term investment.

Payback method is the most simplest and frequently used method of capital investment appraisal. It is defined as the required length of time for a stream of cash proceeds from an investment to recover the original cash outlays required by investment. It has some deficiencies. It ignores the cash inflows after payback date and cash outflows after initial investment and also ignores the time value of money. Unfortunately, it only calculates whether the project is profitable, it can't tell us how profitable the project is. Consequently, it is just a valid indicator of time of getting back the initial outlay of the investment.

Discounted payback method discounts the future cash inflows to present value. Then use it to calculate the payback period.

Net Present Value (NPV) is the process of converting cash to be received in the future into a value at the present time by using an interest rate which is termed discounting and resulting present value is the discounted present value. Pike and

Wolfe (1988) showed that there appears to be a trend towards the increasing use of discounted cash flow (DCF) methods. By using the discounted cash flows techniques and calculating present value, we can directly comparing the return on investment in capital project with alternative of equal risk in capital budgeting. However, such comparison assumes the compared projects are within in non-mutually exclusive with different size. Profitability index, which will be discussed later, is an alternative in solving this issue. The most straightforward way of determining whether a project yields a return is to calculate the NPV. This is the present value of future net cash inflows less the project's initial investment outlays. If the NPV of the project is positive, it is acceptable from an economic perspective. It is no doubt that the most difficulty is to determine the discount rate in this method.

Internal Rate of Return (IRR) is sometimes referred as a discounted rate of return. It reflects the true interest rate earned on an investment over its economic life. That is the discount rate that will cause a zero NPV. The decision rule is that if IRR is greater than the cost of capital, the investment is profitable with a positive NPV and vice versa. Nevertheless, it assumes the organization carry enough finance to take the project. But it is not always the case because organization may has capital shortage in carry out a project even if the project carries a positive NPV. It is unnecessary in using this method when preparing capital budgeting resulting from project's NPV summarizes all financial elements. So NPV is capable of taking over it.

Accounting Rate of Return (ARR) is computed by dividing the average annual profit from a project by the average investment cost. If the IRR exceeds the target rate of return, the project is acceptable, if not the project is rejected. In its

calculation, it ignores the time value of money and gives no minimum acceptable ARR.

The final one is the profitability index. It is computed by dividing present value of cash flows by the present value of cash outflows. A profitability index of 1 or greater represents the project is acceptable and has a positive NPV. Hence, the greater the profitability index, the greater the profitability of the project.

After appraising the strategic option, then we can select and implement the course of action. Finally we compare the actual outcomes and planned outcomes and give response to it if divergences occur. Two approaches can cope with the discrepancies between the planned outcomes and the actual outcomes. They are 'what-if analysis' and 'sensitivity analysis'. The former is a type of analysis exploring the effect of a change in parameter on an outcome. The latter is an analysis of the effect of a change on a parameter on a decision rather on an outcome.

In order to allow accountants to make a correct, accurate and profitable capital suggestion, the following matters should be taken into account by taking considerable care. They are tax policy, customer taste, competitor, technology, cash flow, environmental uncertainties, finance, interest rate, industry context, etc. They are all the necessary information to be considered in making decision in capital budgeting.

Organizations are required to pay tax each year on the benefits on investment and the tax liability is usually assumed to be payable 12 months in arrears. As a result, the tax rate should be clearly understood and considered by accountant. He or she is required to pass the optimum structure of investment to manager who is

appraising the investment of project. On the other hand, accountants are surely required to compute the benefit of capital allowance of tax. As depreciation is not an allowable expenses for tax purposes since most firm make up their own rules. Instead, 'capital allowance' or ' tax allowable depreciation' may be claimed. This capital allowance, like depreciation they replace, is not a cash flow. So the tax rate and the benefit on what an organization get should be both be taken into account by accountants. Consequently, assisting manager makes decision.

Customer taste is another important factor that manager should take into account when making decision. For example, the "green movement" began in Europe, but has quickly spread around the world. At present, marketing personnel are scrambling to keep up with the demands of their "green-oriented" clients. Customers are sophisticated and intelligent. They are concerned about a wide array of environmental issues such as air quality, recycling, etc. Accordingly, some consumers send this kind of message to business decision makers: "If you want to sell products to us, you must be responsible". Accountants may be asked by manager 'if there is a change in customer taste, then how is the profit of out current project bring affected?' 'If this situation does occur, how the divergence between actual profit and actual profit can be accept till the organization can't tolerate any marginal divergence?' etc. So accountants should also consider it when doing appraisal.

However, competitor, technology change, cash flow, and environmental uncertainties are also the matters that accountants need to focus in making investment decision. The above matters will be discussed in one manner. James S. Ang and Stephen P. Dukas (1989) stated that organization typically makes investment decisions in a competitive environment. The recognition of the possibility of entry

by competitors and the existing competitors bring out the quasi-rent nature of capital budgeting projects. In a competitive environment, organizations are trying to create new technology by conducting research and development. Therefore, they are capable of getting advantage over other organization. Once a new technology is developed, it will be learned by other organization and which will make further research and development to improve the existing technology. As a result to get an advantages against the advantages that have been taken over previously. In addition, there is a frequently change in the matter of technology. Consequently organizations have only a temporary advantage in technology. Eventually, there will be a reduction and elimination of the forecasted cash flow. Apart from the use of certain 'ad hoc' risk adjustment procedures, the presence of competitors is usually not explicitly considered in the capital budgeting process or in the theoretical development of capital budgeting models.

For making decision in investment, the fundamental determinant is money. Without money, none of project can be run even if the project carries a positive NPV. Accountants are required to comprehend the finance structure within the organization in prior to making any investment decision suggestion to manager. It is a crucial stage in capital budgeting. For example, let us think about a project with positive NPV, the manager is going to promote this project in the board meeting. However, the manager hasn't considered the finance issue of the organization before promoting it since the organization just carries certain amount of fund in investment that it is in capital shortage. So "how can this project of positive NPV be promoted by the manager in the board meeting?"

The last information that accountant must be taken into account is the interest



rate. If the future expected interest rate is 4% and the rate of return of a project is predicted to be 3%. Apparently, organization prefers to bank money rather than invest the money in that project. It is because the return of banking money is relatively higher. In addition, every investment can be surely understood that it must carry certain level of potential risk. As a result, the anticipated rate of return may not be received in future time. Therefore the interest rate should be carefully considered.

Industry context is likely to important, since cash flow patterns and uncertainty about those patterns may be expected to vary across industries which stated by Paul Collier and Alan Gregory (1995). These cash flow patterns are critical in determining when simpler methods of investment appraisal (payback and ARR) are likely to yield results similar to that of more complex methods such as IRR and NPV. It is also the case that the choice between NPV and IRR may depend on the nature of decision- making within an industry. Where mutually exclusive project choices and/or multiple sign changes in the cash flows are common place, the use of NPV is clearly more desirable.

Since organization has limited resources and money. It is necessary to appraising investment before any investment in capital budgeting. Payback method discounted payback method, Net Present Value (NPV), Internal Rate of Return (IRR), Accounting Rate of Return (ARR) and profitability index are the different kinds of methods in assisting accountant to evaluate capital investment. Unfortunately, it is not clearly that 'which method is better?' It is because there are some advantages in one method over the others and some disadvantages over the others. However, investment decision maker should take information such as tax policy, customer taste,

competitor, technology, cash flow, environmental uncertainties, finance, interest rate, industry context, etc. into account with considerable in making decision in capital budgeting. Nevertheless, Paul Collier and Alan Gregory the estimates of the parameters which will cause the change in profit.

(2406 words)

## **Bibliography**

- ◆ Management Accounting (3<sup>rd</sup> edition), Atkinson Banker and Kaplan Young, 2001, Prentice Hall
- ◆ Management Accounting for Business Decisions (2<sup>nd</sup> edition), Colin Drury, 2001, Thomson Learning
- ◆ Management Accounting Research, Behaviour congruence in capital budgeting judgements, Louis Zanibbi and Richard Pike, Vol. 7, 1996
- ◆ Management Accounting Research, Budgetary process in uncertain contexts: a study of state-owned enterprises in Bangladesh, Manzurul Alam, Vol. 8, 1997
- ◆ Management Accounting Research, Investment appraisal in service industries: a field study analysis of the UK hotels sector, Paul Collier and Alan Gregory, Vol. 6, 1995
- ◆ Management Finance, Capital Budgeting: Emerging Issues and Trends, George M. Zinkhan and F. Christian Zinkhan, Vol. 20, No. 7, 1994
- ◆ Management Finance, Capital Budgeting in a Competitive Environment, James S. Ang and Stephen P. Dukas, Vol. 17, No. 2/3, 1991
- ◆ Managerial Finance, Capital Budgeting and the Stochastic Cost of Capital, Arjun Chairath and Michael J. Seiler, Vol. 23, No. 9, 1997