

BASIC FINANCE DECISIONS

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ABSTRACT

Finance decisions are key decision making areas in a firm. The financial manager is saddled with the responsibility of shaping the fortunes of the firm through guiding management in these decisions. This chapter discusses the investment decision, financing decision, dividend policy decision and asset/liabilities management decision as the four key decision making areas and their effects on the operations, performance and value of a firm.

INTRODUCTION

Decision making is a crucial issue in any business endeavour. The success of the business depends on the types of decisions taken from one point to the other. Right from the start of the business, there are certain decisions that must be taken to enhance the growth and success of such investment. At the same time, wrong decisions or the right decisions wrongly implemented, can jeopardize a lucrative investment. This chapter focuses on the finance decisions in a business organization. There is no facet of life that does not need finance decisions. The nature of these decisions depend on where and when it is needed. To an individual you make such decisions at home, but when it comes to the business set up, the nature of those decisions may change. In a business organization, the financial manager is saddled with the responsibility of taking finance decisions and advising the firm accordingly. The financial manager therefore is the person that is responsible in a significant way, to shape the fortunes of an organization. The finance decisions to be taken by a financial manager are the investment decisions, financing decisions, dividend policy decisions and the asset/liabilities management decisions. The aim of this chapter is to examine the nature, scope and effects of these decisions on the performance of firm.

INVESTMENT DECISIONS: NATURE AND CONCEPT

Investment refers to the commitment of funds and or resources into a project with the expectation of future benefits. Business firms

are faced with various types of investment opportunities. A business organization cannot just jump into an investment like that, without proper analysis to determine the viability of such projects or investments. It is the responsibility of the financial manager to identify the available investment opportunities, analyze the investments using appropriate project analysis tools such as the Net Present Value (NPV), the Profitability Index (PI), the accounting rate of return, the payback period, and the Internal Rate of Return (IRR) and be able to advise the firm on which investment to undertake. The NPV, PI and IRR are called the discounted cash flow techniques. To succeed in taking the investment decision, the financial manager must follow the investment decision process which includes:

- Identify possible investment opportunities.
- Identify possible alternatives to the investment earlier identified.
- Gather relevant data on the investments under consideration.
- Evaluate the investment from the data gathered, and
- Make selection among the investments based on their viability, then
- Implement the investment so selected and
- Monitor and control the investment (Olowe, 2008: 250-251).

Identifying possible investment opportunities starts from when the idea is being conceived within an individual to the when the new product, new market, new methods of production or packaging system, a fresh line of business or any other type of investment is identified. These ideas are developed into project

ideas. Alternative to such projects are also evaluated and relevant data on the investments identified are considered. Evaluating the investment involves financial evaluation based on criteria adopted by the firm. It is always wise to use more than one criterion. Based on the financial and technical evaluation (social managerial, organizational, institutional aspects) an investment is selected. At times, two or more may be presented for selection. After the selection, the firm should try to implement the project based on decisions taken, monitor the progress of the project and assess its effectiveness and expected benefits (Olowe, 2008: 250-251).

Investment decisions of a firm is generally known as capital budgeting decisions or capital expenditure decisions. Capital budgeting decision is defined as the firm's decision to invest its current funds most efficiently in long-term assets in anticipation of an expected flow of benefits over a series of years. These long-term assets are those that affect the firms operations beyond one year. Thus the features of investment decisions are the exchange of current funds for future benefits, investment of funds in long-term assets and expectation of future benefits to the firm over some years (Pandey, 2005: 140-141).

TYPES OF INVESTMENT DECISIONS

Investment decisions are classified into three categories: Expansion of new business, Expansion of old and already existing business, replacement and modernization decisions. Expansion of

new business involves expansion in new products, going into entirely a new line of business/production, investing in new plants and machineries, acquisition of a new business, acquiring a new market among others.

Expansion of an old and already existing business could be expansion of existing operations, increasing production capacity and plant capacity. Pandey, 2005: 142 describes the later as related diversification while the former is unrelated diversification. Replacement decisions introduced more efficient and economical assets to improve operating efficiency and reduce costs. It could be a buy or sell decision or an outright purchase to improve operating efficiency of a firm. This decision is called cost savings decision and is reflected in the increased profits of the firm. In this decision, assets that are outdated and obsolete with technological changes are replaced with new assets that meet up technological changes and are more economical (Aborode, 2005: 249). They could further be classified as mutually exclusive investment decisions, independent investment decisions and contingent investment decisions. Mutually exclusive projects or investment serves the same purpose. The acceptance of one project precludes the acceptance of the other. For instance the acceptance of manual machines in a road construction site stops the acceptance of automated machines. Independent projects or investments serve different purposes and do not compete with one another. For instance, the building of a new classroom block serves a different purpose from the setting up a

library for the same school. Contingent investments are called dependent investments. The choice of one investment necessitates undertaking one or two more investment(s) for example, construction of hostels, calls for provision of electricity or generating plant, pipe borne water and many other facilities.

IMPORTANCE OF INVESTMENT DECISIONS

Investment decisions are vital in a firm because it shapes the growth of the firm in the long run. The effects of these decisions extend into the future, thus a good decision will increase the growth of the firm while a wrong investment decision may jeopardize the growth of the firm. These decisions are irreversible and so sudden stoppage or reversal of the investment decisions may lead to heavy losses and wastage of raw materials, resources and plants. Funding these type of investments usually involve large sum and so the firm needs to plan carefully and make advance arrangements for internal and external financing. Since it involves large amount of money over a reasonable period of time, it may change the risk level of a firm. Investment decisions are among the complex decisions in the firm and so the firm needs to be careful in its implementation. A financial manager that wants to succeed in his/her selection and implementation process depends on the investment decision rules. These decision rules are illustrated below.

INVESTMENT DECISION RULES

This is otherwise called investment criteria or capital budgeting techniques. A good technique is necessary for the appraisal of an investment. As earlier stated, the investment criteria are the Net Present Value, the Profitability Index, Internal Rate of Return, the Payback Period and the Accounting Rate of Return.

Net Present Value (NPV)

Is the difference between an investments market value and its cost. NPV is the value obtained by first discounting all future cash flows from a capital investment project at a chosen interest rate or discount rate or cost of capital and then subtracting the initial cost of the project. The NPV is one of the discounted cash flow (DCF) methods. The DCF is the process of valuing an investment by discounting its future cash flows (Ross, Westerfield and Jordan, 2006: 263). Mathematically the Net Present Value is given as:

$$NPV = \sum_{t=1}^N \frac{C_t}{(1+r)^t} - C_0$$

Where:

- C_t = cash flows at time t
- r or I = cost of capital
- C_0 = initial cast outlay
- $t_{or n}$ = no. of years (time) to maturity

Question:

Assume that Aniefiok Plc is considering a capital investment costing ₦200,000 with the company's cost of capital being 12%. The useful life of the project is 5 years and the estimated cash flows are:

Years	Cash flows (N)
1	90,000
2	120,000
3	70,000
4	40,000
5	60,000

Solution 1:

$$NPV = \frac{\cancel{N}90,000}{(1+.12)} + \frac{\cancel{N}120,000}{(1+.12)^2} + \frac{\cancel{N}70,000}{(1+.12)^3} + \frac{\cancel{N}40,000}{(1+.12)^4} + \frac{\cancel{N}60,000}{(1+.12)^5} - \cancel{N}200,000$$

$$NPV = (\cancel{N}80,361 + \cancel{N}95,664 + \cancel{N}49,826 + \cancel{N}25,424 + \cancel{N}34,044) - \cancel{N}200,000$$

$$NPV = \cancel{N}285,319 - \cancel{N}200,000 = \cancel{N}85,319$$

OR

Solution 1:

Years	C/F (N)	DF @ 12%	Present Value (N)
0	(200,000)	1.0000	—
1	90,000	0.8929	80,361
2	120,000	0.7972	95,664

3	70,000	0.7118	49,826
4	40,000	0.6353	25,424
5	60,000	0.5674	34,044
		NPV =	<u>285,319</u>

So, NPV = ~~N~~285,319 – ~~N~~200,000 = ~~N~~85,319. The project should be undertaken, because the NPV is positive. The company would realize a profit of ~~N~~85,319.

Decision Rule for NPV

Undertake the project if NPV is positive

Reject the project if NPV is negative

If NPV = zero, the project is just worth being undertaken (no loss, no gain)

For mutually exclusive project, accept project with highest NPV.

Profitability Index (PI)

Is otherwise called a cost benefit ratio of a project. It is the present value of future net cash flows divided by initial cash outlay.

That is:

$$PI = \frac{\sum_{t=1}^N \frac{A_t}{(1+k)^t}}{C_0}$$

Decision Rule

Accept the project if PI is greater than 1 and

Reject the project if PI is less than 1.

Consider these two projects:

	A (₦)		Cash flows (₦)	B (₦)		Cash flows (₦)
Initial Cost	150,000	1	50,000	190,000	1	90,000
		2	100,000		2	80,000
Life Span	5 years	3	30,000	4 years	3	100,000
Cost of Capital	10%	4	40,000	15%	4	20,000
		5	20,000			

Should the project be undertaken using PI?

For Project A:

$$PI = \frac{\cancel{₦50,000} + \cancel{₦100,000} + \cancel{₦30,000} + \cancel{₦40,000} + \cancel{₦20,000}}{(1+10) \quad (1+.10)^2 \quad (1+.10)^3 \quad (1+.10)^4 \quad (1+.10)^5}$$

$$\cancel{₦150,000}$$

$$PI = \frac{\cancel{₦45,454.55} + \cancel{₦82,644.63} + \cancel{₦22,539.44} + \cancel{₦27,320.54} + \cancel{₦12,418.51}}{\cancel{₦150,000}}$$

$$PI = \frac{\cancel{₦190377.67}}{\cancel{₦150,000}} = 1.2692 \approx 1.27$$

For Project B:

$$PI = \frac{\frac{N90,000}{(1.15)} + \frac{N80,000}{(1.15)^2} + \frac{N100,000}{(1.15)^3} + \frac{N20,000}{(1.15)^4}}{N190,000}$$

$$PI = \frac{N78,260.87 + N60,491.49 + N65,750.54 + N11,435.11}{N190,000}$$

$$PI = \frac{N215938.01}{N190,000} = 1.14$$

Therefore project A with the highest PI of 1.27 should be undertaken, though both are viable.

Internal Rate of Return (IRR)

Is that rate of return that will make the project to give an NPV of zero. It is the rate of return that equals the present value of future cash flows to the initial outlay. It is given as:

$$PI = \sum_{t=1}^N \frac{A_t}{(1+k)^t} - C_0 = 0 \quad Or \quad IRR = D_L + \left(\frac{NPV_p}{NPV_p - NPV_n} \right)^{\frac{D_H}{D_L}}$$

Where:

D_L = lower discount rate with + NPV

D_H = higher discount rate with - NPV

NPV_p = amount of positive NPV

NPV_n = amount of negative NPV

K^* = IRR

Example:

Consider that Eteobong Ltd. is taking a project costing ₦70,000 with cash flows of ₦30,000 for three years. Calculate IRR of the project, if the firm’s cost of capital is 15%.

$$\begin{aligned}
 &= (\cancel{₦26,086.96} + \cancel{₦22,684.31} + \cancel{₦19,725.16}) - \cancel{₦70,000} \\
 &= \cancel{₦68,496.43} - \cancel{₦70,000} = - \cancel{₦1503.57} \\
 \text{IRR} &= \frac{\cancel{₦30,000}}{(1.15)} + \frac{\cancel{₦30,000}}{(1.15)^2} + \frac{\cancel{₦30,000}}{(1.15)^3} - \cancel{₦70,000} = \text{zero}
 \end{aligned}$$

With 14% cost of capital, IRR = ~~₦69,649.57~~ - ~~₦70,000~~ = - ₦350.43

So the closest IRR to zero = 1.14% i.e. 14%.

The Payback Period

The payback period usually expresses the period in years it takes for the original cash of the project to be recovered from earnings of the project (Ross, Westerfield and Jordan, 2006:266). Earnings here represent cash earnings (cash flows). In other words, the payback period is the period it takes cash inflows from a capital investment project to equal the cash outflows. It is the first screening method for evaluating projects and for measuring liquidity. If the payback period is less than the expected or target payback period, the capital project is accepted and vice versa.

For mutually exclusive projects, the project with the shorter payback period is accepted. Consider the following two projects:

Solution:

	Project A	Project
Initial Cost	₦100,000	₦100,000
Residual value after 5 years	₦100,000	₦100,000

Estimated profit after depreciation								
Year 1 -	-	-	-	-	20,000 -	-	-	80,000
2 -	-	-	-	-	30,000 -	-	-	60,000
3 -	-	-	-	-	40,000 -	-	-	20,000
4 -	-	-	-	-	50,000 -	-	-	10,000
5 -	-	-	-	-	60,000 -	-	-	10,000
Annual Depreciation					20,000			20,000

Which of the projects should be preferred using the payback period?

Annual Depreciation + Earnings	Project A	Project
Year 1	40,000	100,000
Year 2	50,000	80,000
Year 3	60,000 (10,000)	40,000
	60,000	
Year 4	70,000	30,000
Year 5	80,000	30,000

The payback period for the investment is $2\frac{1}{6}$ years or 2.17 years, which is approximately two years and two months.

Accounting Rate of Return (ARR)

It is an investment average net income divided by its average book value. Mathematically it is given as:

$$\text{ARR} = \frac{\text{Average Annual Profits}}{\text{Average Investment}} \times 100$$

Example:

Assume a company considers this project:

Capital cost of equipment = 180,000

Estimated life 5 years

Residual value Nil

Estimated Profits before Depreciation

1	50,000
2	60,000
3	70,000
4	50,000
5	20,000

Company's target rate of return is 22%. Should the project be accepted using ARR?

Solution

	N
Total profit before depreciation over 5 years	- 250,000
Total depreciation (cost-residual value)	- <u>180,000</u>
Total profit after depreciation over 5 years	- <u>70,000</u>
Average annual profits after depreciation	$\left(\frac{70,000}{5 \text{ years}}\right)$ 14,000
Original cost of investment-	- - - 180,000

Average investment cost:

$$(\text{Opening investment} + \text{closing investment})/2 = \frac{\text{N}180,000}{2} = 90,000$$

$$\text{ARR} = \frac{\text{N}14,000}{\text{N}90,000} = 15.56\%$$

The investment should not be undertaken, because the ARR is less than the target rate of return which was 22%.

After the selection of the investment(s) to be undertaken, the financial manager needs to source for funds to finance the investment(s) chosen. This takes us to the next major finance decision which is the financing decision.

NATURE AND CONCEPT OF FINANCING DECISION

Financing decision has to do with the sources of funds available for business financing. This decision is best described in the functions of finance designated by the 3A's of finance. The financial manager would have to anticipate the financial needs of the firm, acquire the financial resources and allocate the financial resources according to priorities in the firm. At the same time, the financial manager must have a knowledge of the firm's capital structure, and financial leverage. It is the responsibility of the financial manager to evaluate the financing alternatives available for capital projects (Pandey, 2005: 289-207). The financing decision or capital structure decision is a significant managerial decision. It influences the shareholder's return and risk and the market value of the share. The various means of financing are presented in the financial structure of a firm as seen in the liabilities and equity section of the balance sheet. A company would therefore have to plan its capital structure decision at its initial starting point, and subsequently whenever funds have to be raised to finance investment.

Again, to avoid mismatch, capital investment projects must be financed with medium or long term sources of funds. The medium term sources of funds are hire purchase, lease financing and the use of term loans while long term sources of funds are equity, debt, combination of debt and equity, reserves and retained earnings. The short term sources on the other hand include trade credit, factoring of account receivables, pledging of account receivables, line of

credit, revolving credit, commercial papers and many others. To finance capital investments, the medium and long term funds are preferable (Olowe, 2008: 421; Weston and Brigham, 1978: 112-126).

EVALUATION OF FINANCING ALTERNATIVES

- 1) For a firm to buy a capital asset with cash, the implications are that there is immediate outflow of cash which is carried as the cost of the investment. The firm is entitled to residual value at the end of the project. The firm can claim its investment allowances. This is used to reduce taxable profits of the investment.
- 2) If a firm borrows to buy capital assets, it obtains legal title to the assets and thus obtains investment allowances on the project. The company makes regular loan repayments and interest payments within the loan repayment are allowable expense against tax. The company is entitled to residual value or trade in value at the end of the project. These are the cash flow implications.
- 3) If a capital asset is bought under a hire purchase agreement, capital allowances would be available on the project because the firm is treated as it had outrightly owned the asset right from the time the agreement was entered. The firm will have to be making regular hire purchase payment and the interest payments are allowable expense against tax (Olowe, 2008: 424).

NATURE AND CONCEPT OF DIVIDEND POLICY DECISION

A dividend is a payout of companies profit to its shareholders or a payment made out of a firm's earnings to owners. It could be in the form of cash, stock repurchase or giving out new 'free' shares of stock which is known as splits of existing shares. Thus, we see that any value that the shareholder gets out of the company's earnings is not capital growth, but a dividend which are discussed later.

Many shareholders in Nigeria view being rewarded at the end of a company's financial year as one of the greatest motivation to invest in that company. Thus, the question is posed: Do dividends really matter to the shareholder, to the market and to the analysts? This question gives rise to the relevancy and irrelevancy theories of dividend.

Adefila (2004:9) discovered that dividends payment is an attractive bait for stimulating investment in Nigeria. The point to note here is the perception of the market and the shareholders. Their perception gives rise to reality. The message that dividend payments send to the market include.

i) **How Well the Company is Performing**

It says that the company is performing really well and that is why the company decided to give out that money to its shareholders.

ii) **Shareholder's Value**

It shows that the company realizes the need to increase the shareholder's value and all these features in the company's investment plan for their shareholders.

iii) **Dividend Policy**

When companies make profit, they have to decide whether to retain the profits or payout to shareholders. The payment depends on whether the dividend policy of the firm is stringent or liberal. A liberal dividend policy allows for dividend payment whenever the firm declares profit while a stringent dividend policy holds on the payment (for reinvestment) until such a time when the firm deems it convenient to pay.

TYPES OF DIVIDENDS

Dividends come in various forms. We have the cash dividends, stock repurchase, stock dividends and stock splits (Ross, Westerfield and Jordan, 2006:573-596).

Cash Dividend

Cash dividend is the most common type of dividend. Generally, companies and even cooperative societies do pay cash dividends to encourage their shareholders and members to continue investing in such companies or societies. Cash dividends are cash payments made directly to shareholders, usually in the normal course of business. Cash dividends are classified into four groups:

regular cash dividends, extra dividends, special dividends and liquidating dividends. Regular cash dividend is paid in the normal course of business. Extra cash dividends are the excess dividend over regular cash dividend. They may or may not be repeated in the future. Special dividend is usually a one-time dividend and may not be repeated. Liquidating dividend is usually paid when the business has been liquidated, that is, sold off. However, implications are that cash dividend payment reduces corporate cash and retained earnings (Ross, Westerfield and Jordan, 2006:573).

Stock Repurchase

Another method in which a firm can use to pay dividend to its shareholders is to repurchase its own stock or undertake a buyback arrangement. This is referred to as stock repurchase. So stock repurchase is another method used to payout a firm's earnings to its owners. This method provides a more preferable tax treatment than dividends (Ibid: 591). In a real world consideration and under tax law, a repurchase has a significant tax advantage over cash dividends. In cash dividend, it is fully taxed as ordinary income and a shareholder has no choice as to whether or not to receive the dividend. In a repurchase, a shareholder pays taxes only if the shareholder actually chooses to sell the stock or if the shareholder has a capital gain on sale. Stock repurchase is beneficial to a shareholder because it causes the earnings per share to increase.

This is because stock repurchase reduces the number of outstanding shares but has no effect on total earnings.

Stock Dividend and Stock Splits

Stock dividend is another method of dividend payments made in the form of dividend paid out in the form of shares (stock). So a stock dividend is a payment made by a firm to its owners in the form of stock, diluting the value of each share outstanding while a stock split is an increase in a firm's shares outstanding without any change in owner's equity. It is essentially the same thing as a stock dividend but it is expressed as a ratio instead of a percentage as is done in stock dividend (Ross, Westerfield and Jordan, 2006:593).

DIVIDEND POLICY AND DIVIDEND PAYOUT POLICY

Dividend policy is the time pattern of dividend payout (Ross, Westerfield and Jordan, 2006:576). As earlier explained, the dividend policy could be stringent or liberal. The decision of how much to payout or how much to retain in a company is taken by the board of directors. This decision is known as the dividend payout policy. This is an important decision as it may influence the company's capital structure and stock price. The different dividend payout policies that companies can implement are:

i) **Fixed Payout Percentage**

This is a dividend policy based on the payment of a certain percentage of earnings to shareholders in each dividend

period. It is a good policy in that it is determinable by the shareholder. It is calculated as:

$$\begin{aligned} \text{Dividend payout ratio} &= \frac{\text{Dividends}}{\text{Net Income}} \\ &= \frac{\text{Yearly dividend per share}}{\text{Earnings per share}} \end{aligned}$$

The dividend payout ratio tells what percentage of total earnings the company is paying back to shareholders. A healthy dividend payout ratio leads to investor confidence in the company. A low dividend payout ratio implies that the company is retaining a large portion of its earning for growth in future. Whether it is a low or high dividend payout ratio, it all depends on the investor. The decision to invest is based on the kind of investor, whether an income oriented investor or a capital growth seeking investor.

Example

Kingsway Inc. has declared and paid a dividend of ₦0.70 per share of common stock, the company does not have preferred stock outstanding. Given that:
Find the dividend payout ratio.

Solution

$$\begin{aligned} \text{Dividend payout ratio} &= \frac{\text{Dividend per share}}{\text{Earnings per share}} \end{aligned}$$

First we find earnings per share

$$\begin{aligned} \text{Earnings per share} &= \frac{\text{net income}}{\text{Number of shares}} \\ &= \frac{\text{N}22,000}{\text{N}10,000} = \text{N}2.2 \\ \text{Dividend payout ration} &= \frac{\text{N}0.7}{\text{N}2.2} = \text{N}0.32 \end{aligned}$$

In percentage terms it is 32%. That is, only thirty two percent of profit declared is paid out as dividend.

ii) **Zero Payout**

In this case no dividends are paid. As at 2013, information obtained from the Nigerian Stock Exchange (NSE) stated that 57 quoted firms had not paid dividends for the past five years.

iv) **Constant or Steadily Increasing Payout**

This is the most common form of dividend policy. According to this policy, dividends in terms of cash value mostly remain constant irrespective of the level of earnings. Most of the time it is gradually increased by a specific percentage over a period of time. The disadvantage of this type of policy is that it does not reflect the performance of the company.

Considering the fact that humans are naturally risk averse, having a steady dividend income helps to reduce the uncertainty associated with one's investment (Luenberger, 1998).

How does growth potential affect an investors' equity value? A very simple example to illustrate the effect of dividend growth on the cost of equity is shown below:

Applying the Gordon (1959) constant growth dividend model

$$\text{The stock value (P)} = \frac{D}{k-g}$$

Where: D = expected dividend per share one year from now

K = required rate of return for equity investor

g = growth rate of dividends (in perpetuity)

If it is given that the next dividend per share is 20k, the shareholders rate of return is 10% per annum and the annual growth rate is 5%. Then the stock value will be:

$$P = \frac{0.2}{(0.10-0.05)} = \text{N}4.00 \text{ - - - (1)}$$

Taking the growth rate out of the equation we have:

$$P_1 = \frac{0.2}{(0.10)} = \text{N}2.00 \text{ - - - (2)}$$

From equations (1) and (2), we note the impact of growth on the stock value. This is an important consideration for rational investors when they decide to buy shares.

Dividend Policy and Stock Value

Olatundun (2009: 22) looked at the price reactions to dividend announcements on the Nigerian stock market and found out that within a span of 30 days from the day of announcement, the Cumulative Excess Returns (CERs) for dividend paying firms were positive and significant while the CERs for dividend omitting firms for the same period were significant and negative.

This goes to show that shareholders in practice usually prefer firms with a stable and predictable dividend policy (Musa, 2009: 561). By the year 2012, the financial services sector had the highest number of dividend paying companies closely followed by those from consumer goods, services and industrial goods sector in that order. There are various theories that try to explain the relationship of a firm's dividend policy and the value of the common stock.

Adeyemi and Adewale (2010: 15) findings revealed that the Nigerians investors attitudes are consistent with those of the bird-in-the-hand theorists. This theory was put forward by Gordon and Lintner who are wed that the dividend yield is the less risky component of total expected return as given in the formular

$$r = \left(\frac{\text{Dividend}}{P_0} \right) + g$$

Where: r = return on equity

P_0 = current stock price of firm's stock

g = expected future annual growth rate of the firm's dividend

This implies that when the firm increases its dividend yield, its required return will decrease but its stock price will increase (Brigham and Houston, 1992: 266). We also have the optimal dividend policy which is a policy that strikes a balance between current dividends and future growth that maximizes the firm's stock price.

Dividend Policy Issues

Effect of changing dividend policy may impact on the company in a number of ways.

i) **The Clientele Effect**

This implies that the investors are attracted to different company policies. Hence when a company's policy changes, investors will adjust their stock holdings accordingly, hence companies with high dividends will have a clientele of investors with low marginal tax rates and strong desires for current income.

ii) **Information Content or Signaling Effect**

This is a case where the dividend changes serve as signals of the managements earnings forecast. When the company increases its dividend, it is fairly certain of improved future earnings.

THEORIES OF DIVIDEND POLICY

To decide whether or not dividend policy matters, our discussion would be based on whether the firm should pay out cash now or invest the cash and pay it out later. Two schools of thought exist on the theories of dividend policy. They are the relevancy theorists and the irrelevancy theorists. The relevancy theory is of the opinion that payment of dividend is relevant to a firm.

Walter, 1956 in Olowe, 2008: 507 argued that the decision to pay dividends depends on the profitability of investment opportunities available to the firm. This could be explained in terms of the firm's internal rate of return and shareholder's cost of capital.

This is given as:

$$P = \frac{D_t + \left(\frac{R_t}{K_t}\right)(E_t - D_t)}{K_t}$$

Where:

- P = market price share
- R_t = rate of return at time t
- k_t = shareholder's required rate of return or cost of capital at time t

- D_t = dividend per share at time t
- E_t = earnings per share at time t (Olowe, 2008: 507)

He argued that a firm that has its internal rate of return higher than the cost of capital is a growth firm and is faced with profitable investment opportunities, yielding rates of return higher than what the shareholders requires. So this type of firm's would not pay dividend, but would retain all earnings to maximize market price per

share. For normal firms whose rate of return equals the cost of capital, their market price per share is independent of the dividend payout. So they would pay dividend. For declining firms, no profitable investments, internal rate of return is lower than the cost of capital, so they would distribute all earnings as dividend to maximize market price per share. Myron Gordon, 1959 in Olowe, 2008: 510 is of the opinion that the motive to pay dividend is to increase share market prices of the companies. This he said is because the market price of a company's share is a function of the present value of estimated cash flows realizable from the share. This is gotten from this formular:

$$P_o = \frac{D_1}{(1.15)} + \frac{D_2}{(1.15)^2} + \frac{D_3}{(1.15)^3} \cdot \cdot \cdot \frac{D_n + P_n}{(1+r)^n}$$

- Where:
- P_o = current market price pre share
 - P_n = estimated net share price at the time of disposal
 - D_n = estimated cash dividend receivable at period n
 - r = cost of capital
 - n = number of years to maturity (Olowe, 2008: 510).

On the other hand, the irrelevancy theory is proposed by Modigliani and Miller (1961) as seen in Olowe, 2008: 513, it says that if the investment decision of a firm is given, dividend payout ratio does not affect the shareholder's wealth. They argue that the value of a firm depends on the firm's earnings or its investment policy. The split of earning's between dividend and retained earnings has no effect on the value of a firm.

NATURE AND CONCEPT OF ASSET/LIABILITIES MANAGEMENT (ALM) DECISION

Asset/liabilities management is a comprehensive and dynamic framework for measuring, monitoring and managing risk that arise due to the mismatches between assets and liabilities, debts and assets of a financial institution. It is a continuous process of planning, organizing and controlling the asset liability volumes, maturities, rates and yields firm. Asset/liabilities management decision is used to manage the interest rate risk (IRR) and the liquidity risk faced by firms. Interest rate risk covers gap or mismatch risk, basis risk, option risk, yield curve risk and reinvestment risk while liquidity risk.

The objectives of assets and liabilities management decisions, is to protect or enhance the following:

- i) The Net Interest Income (NII) of a firm.
- ii) The Net Interest Margin (NIM) or spread of a business organization.
- iii) The market value of net worth of a firm

The function of assets and liabilities management is not only protection from risk, but also to open up opportunities for enhancing net worth.

Asset/Liabilities Management Strategies

The different ways adopted by firms to carry out the asset/liabilities management measurement include:

1) **Financial Statements**

This has to do with balance sheets and income statements. By analyzing the credit union's financial statement, one can begin to spot a trend. These statements help to measure financial condition, and the trends help to identify risk. Financial statements can be compared overtime. This gives a good measurement of asset/liabilities management.

2) **CAMEL Ratios**

The ratios are capital, asset quality, earning and asset/liability ratios. These are good ratios derived from financial statements. They can be measured for the past, present and future and can be compared to peer group. CAMEL ratios are relatively easy to compute, compare and understand.

3) **GAP**

This deals with balancing the gap between interest rate sensitive assets and interest rate sensitive liabilities. This is done by distributing the assets and liabilities into various time bands called buckets, according to their maturity period.

The two main types of GAP are:

- a) Maturity GAP
- b) Repricing GAP

There are three possible GAP positions

i) **Negative GAP**

This is created when more rate sensitive liabilities are repricing than rate sensitive assets in a given period. In this case, the Net

Interest Income (NII) and Net Economic Value (NEV) will decrease.

ii) Positive GAP

This is when more rate sensitive assets are repricing than rate sensitive liabilities in a given period. In this case, the NII and NEV increase.

iii) A Match

This occurs when interest rate sensitive assets and interest rate sensitive liabilities are equal in a given time period. The NII and NEV exhibit no change.

iv) Net Economic Value (NEV)

This Asset/liabilities management technique is also known as Economic Value of Equity (EVE). It helps to measure interest rate risk to capital.

v) Income Simulations

This measures interest rate risk to earnings. They simulate future income statements if certain items change. These items could be:

- Interest rates
- Growth
- Changes in the composition of assets and liabilities, fees, charges and other non-interest income and expense charges.

In Nigeria, the instability in the banking sector has had a significant effect on the real economy. Hence analyzing the stability

and profitability of banks is pertinent. Assets and liabilities management is a very useful technique for managing the risks associated with liquidity and interest rates which affect banks. Lets take a look at a simple example of applying assets and liabilities management procedure using gap analysis. Given the following information on a bank's balance sheet:

	Assets	Liabilities
Interest rate sensitive -	20	50
Non interest-rate sensitive -	<u>80</u>	<u>50</u>
Total - - - -	<u>100</u>	<u>100</u>

The initial interest rate for assets was 5% and that of liabilities was 3%. Assuming there is a 1% increase in both asset and liabilities interest rate, perform a GAP analysis on the given data.

Solution:

We first calculate the revenue from the assets and the cost from the liabilities using the initial interest rate and the new interest rate. Since there is a 1% increase in interest rate \Rightarrow interest rate of asset moved from 5% to 6%.

Revenue and cost of initial interest rate

Revenue (₹)

From interest rate sensitive assets	-	$5\% \times 20 = 1.0$
From interest rate insensitive assets	-	$5\% \times 80 = \underline{4.0}$
Total - - - -	-	<u>5.0</u>

Cost (₹)

From interest rate sensitive liabilities	3% x 50 = 1.5
From interest rate insensitive liabilities	3% x 50 = <u>1.5</u>
Total	<u>3.0</u>

Revenue and cost at new interest rate

	Revenue (N)
From interest rate sensitive assets	- 6% x 20 = 1.2
From interest rate insensitive assets	- 5% x 20 = <u>4.0</u>
Total	<u>5.2</u>

	Cost
From interest rate sensitive liabilities	4% x 50 = 2.0
From interest rate insensitive liabilities	3% x 50 = <u>1.5</u>
Total	<u>3.5</u>

N/B: We see from the above calculation that revenue and cost of interest rate insensitive assets and liabilities do not change even when the interest rate rises. This is because they do not react to interest rate changes.

Change in Revenue	(N)
Total revenue at initial interest rate	= 5.0
Total revenue at new interest rate	= 5.2
Change in revenue	= 5.2 – 5.0 = 0.2
Change in Cost	(N)
Total cost at initial interest rate	= 3.0
Total cost at new interest rate	= 3.5
Change in cost	= 3.5 – 3.0 = 0.5

Change in profit or loss = change in revenue – change in cost = 0.2 – 0.5 = 0.3

This is the lost due to interest rate change. This implies that the profit drops by 0.3 naira.

Important notes on the above illustration

Interest rate sensitive assets include treasury bills, treasury certificate and other short term securities etc. Example of insensitive assets are long term loans. An example of interest rate sensitive liability include short term deposit that enables a customer remove his/her money at any time while interest rate insensitive liabilities include long term deposits or certificate of deposits (CD). These are fixed for a period of 1 month, 3 months or even a few years. It is from these deposits that banks can give out loans.

- Because people want more flexibility in their deposits, there are relatively more interest rate sensitive liabilities than assets. We also note that the interest rate insensitive assets are greater than liabilities.
- Hence we see a mismatch between assets and liabilities for banks. This implies that once the interest rate increases, the bank will experience a decrease in their profit.
- A simple assumption of 1% increase interest rate is taken for the question. But in reality the interest rates could change with varying percentages.

SUMMARY

This chapter focused on examining the various types of finance decisions in a firm. The finance decisions covered investment decision, financing decision, dividend policy decision and the assets/liabilities management decision. Investment decision of a firm is generally known as capital budgeting decisions or capital expenditure decisions. It is defined as the firm's decision to invest its current funds most efficiently in long term assets in anticipation of an expected flow of benefits over a series of years. Investment decisions are classified into three categories: expansion of new business, expansion of old and already existing business, replacement and modernization decisions. Investment decisions are vital in a firm because it shapes the growth of the firm in the long run. The investment criteria are the Net Present Value (NPV), the Profitability Index (PI), the Internal Rate of Return (IRR), the payback period and the accounting rate of return.

The financing decision is otherwise called the capital structure decision. It has to do with sourcing of funds to finance the investments so chosen by the firm. It is a significant managerial decision in which the financial manager must evaluate the financing alternatives available for use. The evaluation has to do with buying a capital asset with cash, borrowing to buy capital assets and buying capital asset under hire purchase agreement. The various financial implications have been evaluated.

Dividend policy decision has to do with the payout of a firm's profit to its shareholders. A dividend is defined as a payment made out of a firm's earnings to its owners. We have different types of dividend; the cash dividend, stock repurchase, stock dividend and stock splits. Cash dividend is further classified as regular dividend, extra dividend, special dividend and liquidating dividends. Payment of dividend is based on the relevancy and irrelevancy theories of dividend policy.

The least but not the last finance decision is the assets/liabilities management decision. It is a comprehensive and dynamic framework for measuring, monitoring and managing risk that arises due to the mismatches between assets and liabilities, debts and assets of a firm.

QUESTIONS

- 4) As a financial manager, advise your firm on whether to embark on a new product whose life span is six years with the cash flows of ₦5,000 in the first year, ₦7,000 each in the second and third years, ₦3000 each in fourth and fifth year and ₦2000 in the six year, with initial cost of ₦12,2000 and a discount rate of 12%.
- 5) Examine the financial implications of buying a capital asset under hire purchase, with cash and through borrowed funds.
- 6) Mention and explain the various categories of dividend. Is dividend payment necessary or not. Explain your answer. Differentiate between dividend policies and dividend payout policies.
- 7) Discuss the strategies involved in asset/liabilities management. Is this decision different from the three financing decisions earlier discussed?

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