The activities of management have been identified to include finance, accounting, production, marketing, personnel, management, research development, quality control among others. The interdependence of these areas is necessary for effective and efficient result. Management must therefore be concerned not only with production and marketing but also with finance.

**FINANCE AND FINANCIAL MANAGEMENT**

The concept of finance can be considered from two perspectives which are:

1. Finance can be seen as the monetary and capital resources used by the business in the acquisition of other resources or investment assets.
2. Finance is also considered as the management of the monetary resources of organization and this aspect is better referred to as financial management.

Financial management is the managerial planning and controlling of the financial resources of a business in order to achieve an organization's overall objectives. The objective of financial management is to increase shareholder's wealth by maximizing returns and minimizing risks.

Financial strategies are concerned with the acquisition and allocation of capital and the management of working capital and dividends.

**BASIC CONCEPTS IN FINANCIAL MANAGEMENT**

To further appreciate the concepts of financial management is necessary to highlight its concepts, which include: capital, working capital and dividends.

a. Capital: This is the financial resources used n business for investment purposes
b. Working Capital: This is a proportion of capital use for day-to-day running of a business and which ensures that the business meet her short-term financial obligation.
c. Dividends: These are the returns received (declared) or receivable (returned) by investors from the profits generated by the business organization.

**<u>Functions of Finance</u>**

According to pandey, finance functions are categorized into two, which are: managerial finance functions (Assets acquisitions) and Routine finance function (working capital acquisition).

Generally, management finance functions include:

a. Investment decision

r= rate of interest (14%=0.14)

n= number of years (15/12=13/12=1.25)

SI=460 0.14 1.25

SI= N 80.50

The accumulated value:

Fv=P+SI

Fv=460+80.50

Fv=N540.50

It is a common practice among tending institution to count the exact number of days in term of a loan when n

$Fv=p(1+r)^n$ where:

Fv =accumulated value (4500)

P=present value (3250)

r=rate of interest (0.06)

n=number of years (?)

$4500=3250\ (1+0.06)^n$

$4500/3250 =(1+0.06)^n$

$1.3846=(1.06)^n$

Take log of both sides

Log 1.3846 = nlog 1.06

Divide both sides by log 1.06

n= log 1.3846/ log 1.06

n=0.1432916/0.023059

n=5.58 years

n=5.9 years

or use the formula:

n=log fv-log p/log (1+r)

**COMPOUND INTEREST**

$Fv(1+r)=A(1+r) +A(1+r)^2 +A(1+r)^3 + \ldots\ldots\ldots\ldots\ldots A(1+r)^{n+1}$

**Subtract equation 2 from equation 1**

$Fv-Fv(1+r)=A-A\ (1+r)^{n+1}$

$Fv[1-(1+r)]=A[1-\ (1+r)^{n+1}]$

$Fv[1-(1+r)]=A[1-\ (1+r)^{n+1}]$

$Fv[-r]=A[1-(1+r)^{n+1}]$

$Fv[1-(1+r)]=A[1-(1+r)^{n+1}/-r]$

**Multiply inside by -1**

$fv= A\ [(1+r)^{n+1}-1/r]$

**fv=Accumulated value**

**A=periodic installment or investment**

**n=term of the annuity**

**=Annuity rate**

**Illustration**

1. What is the accumulated value of ₦10,000 receivable at the end of each year for 10 years if the rate of interest is 11%
2. If an installment deposit of ₦500 at 13% is made at the end of each month over the next 9 months, (a) determine the compound value of the installment

**b) installment (A) of Annuity:** sometimes the sum that must be paid, received or deposited on each occasion of series of equal installment for a fixed period to accumulate to future amount is required. In this case, just make A the subject of the formula. i.e,

**$A=fv/[1-(1+r)^{-n}/r]$**

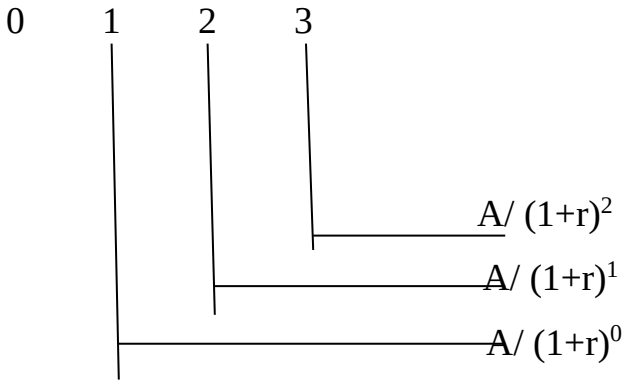
**Illustration**

It is desired to replace a piece of equipment at a cost of #1,200,000 in 5 years time by making a series of five equal annual deposit into an account that pays 21% interest compounded annually. Determine the sum that must be deposited on each occasion.

c) **Present value of ordinary annuity:**

ii. If an installment deposits of #500 at 13% is made at the beginning of every month over the next 9 months, determine the compound value of the installment.

b present value of annuity due is the amount that must be deposited or invested at a specified compound rate of interest to enable the investor receive a stream of future payment over a specified,at the beginning of each period.




$PV_n = A/(1+r)^0 + A/(1+r)^1 + A/(1+r)^2 \ldots\ldots\ldots\ldots\ldots + A/(1+r)^{n-1}$

**Divide equation 1 by (1+r)**

$PV_n/(1+r) = A/(1+r)^1 + A/(1+r)^2 + A/(1+r)^3 + \ldots\ldots\ldots + A/(1+r)^{n+1}$

**Subtract equation 2 from equation 1**

$PV_n - PV_n/(1+r) = A/(1+r)^0 - A/(1+r)^n$

$PV_n(1-1/(1+r)) = A - A(1+r)^{-n}$

$Pv_n[1+r-1/1+r] = A[1-(1+r)^{-n}]$

$PV_n[r/(1+r)] = A[1-(1+r)^{-n}]$

$FV_n = A[1-(1+r)^{-n}] \times 1+r/r$

$PV_n = A[1=r-(1+r)^{-n+1}/r]$

How much must be deposited in a savings account now if you are to fulfill a debt obligation of #10000 at the beginning of each of the next 5 years and interest rate is 10% payable annually

**CAPITAL BUDGETING DECISION**

One of the four functions of finance is investment decision, which involves the commitment of funds (and other resources) today for the purpose of enjoying the returns in the funds. There is need therefore to appraise investment opportunities given the require initial outlay, future cash flows, cost of capital and the time horizon to ensure efficient allocation of scarce resources.

## WORK EXAMPLE

### WEIGHTED AVERAGE COST OF CAPITAL

Given that both private and public sector companies have several of capital it is therefore necessary to include this consideration into the cost of capital.

Illustration
Antokel Nig. Ltd has the following capital structure:

| | | | Cost of capital calculate for each |
|---|---|---|---|
| 12% | debentured | #450,000 | 6% |
| 8% | preference shares | #200,000 | 10% |
| Ordinary shares | | #800,000 | 17% |
| Returned earnings | | #500,000 | 17% |

Calculate the weighted average cost of capital

Solution

| Sources | Capital structure | Cost | Weighted cost |
|---|---|---|---|
| 12% Debenture | 500,000 | 0.06 | 30,000 |
| 8% Preference shares | 200,000 | 0.1 | 20,000 |
| Ordinary shares | 800,000 | 0.17 | 136,000 |
| Retained earnings | 500,000 | 0.17 | 85,000 |
| | | | = 271,000 |

WACC = $^{271,000}/_{2,000,000}$ = 13.55% = 14%
Cost of Debenture: $^{INT}/_{MV(Ex-Int.)}$



### NET PRESENT VALUE METHOD

If a firm invest in a project with rates of return of 15% then it can "discount" future profits at 15% which becomes the firms marginal investment rate. The Net present value or worth is the most straight forward discounted cash – flow measure of project worth. It can be calculated once the future streams of costs associated with the project are known. If we discount all future net inflows expected from all investment, the sum of the net inflows in all years can then be compared with the size of the investment.

If the discounted value of net inflows is greater than the initial investment, the surplus is the Net Present Value (NPV) of the project. i.e. NPV = GPV = $C_o$

Where $C_o$ = Initial capital outlay

And GPV = $\sum A^n / (1+r^n)$

**Illustration**

$P_0=Div_1\,(1+r)/(1+r)^n+1+r/1-r_n(Pn)=Div_n+1$ / Ke-rn

The share of UBA PLC are at $r_n$ = new growth rate, the present enjoying investors patronage given as the price of share. The dividend expected at the end of the year is #1.20. A growth rate of 10% expected in the four years. After that, dividends are expected to grow at the rate of 8%. Calculate the cost of equity.

**Solution**

Use of original rate

27=1.32(0.91) + 1.45(0.8) +1.60(0.75) + 1.76 (0.68) =#69.4

Npv at 10% is 69.4-27=42.4

Assume another rate (15%)

$1.32/1+r+1.45/(1+r)^2+1.60/(1+r)^3+1.76/(1+r)^4$

0.87 +1.45 (0.76) +1.60(0.66)+1.760 (0.57)

Npv =19.79-27=7.21

Ke=10% + [42.4/42.4-(7.21)](15-10)%

Ke=10%+0.857 (5%)

Ke=10% + 4.27%

Ke=14.27%



**Cost of preference shares**

The cost of preference shares is the minimum rate of return required by providers of preference shareholder. Its derivation depends on whether the preference share is treated the same manner. The cost of equity with constant dividend and zero growth rate are treated.

a cost of preference shares (Irredeemable)

$Po=D[1-(1+r)^{-n}/r+Rv\,[1+r]^n$

**Illustration**

PLC issues 8% redeemable preference #1 each. The market value of #1.20k are redeemable in 5 years time of #10 premium. Calculate the cost of the redeemable preference shares.

by members of the public. NAICOM ensures adequate capitalization and reserve, good management, high technical expertise and judicious fund placement in the insurance industry.

**The Federal Mortgage Bank of Nigeria (FMBN)**

The FMBN took over the assets and liabilities of the Nigerian Building Society. The FMBN provides banking and advisory services, and undertakes research activities pertaining to housing. Following the adoption of the National Housing Policy in 1990, FMBN is empowered to license and regulate primary mortgage institutions in Nigeria and act as the apex regulatory body for the Mortgage Finance Industry. The financing function of the Federal Mortgage Bank of Nigeria was carved out and transferred to the Federal Mortgage Finance, while the FMBN retains its regulatory role. FMBN is under the control of the Central Bank of Nigeria.

**Financial Services Co-ordination Committee (FSCC)**

The Committee was established in 1998 and charged with the primary responsibility to promote safe, sound and efficient financial sector in the country. It's membership is drawn from the key regulatory and supervisory institutions in the nations financial system, namely , Central bank of Nigeria (CBN), Security and Exchange Commission (SEC), National Insurance Commission (NAICOM), Corporate Affairs Commission (CAC) and the Federal Ministry of Finance. This committee chaired by the Ministry of Finance co-ordinates the activities of all regulatory institutions in the financial system.



**THE MONEY MARKET AND ITS INSTITUTIONS**

This is a market for short-term debt instruments. The major function of the money market is to facilitate the raising of short-term funds from the surplus sectors to the deficit sectors of the economy. The deficit units, which could be public or private, obtain funds from the market to bridge budgetary gaps by either engaging in inter-bank taking or trading in short-term securities such as Treasury Bills, Treasury Certificates, Call Money, Certificates of Deposit (CD), and Commercial Papers (CP). With the commencement of Open Market Operations (OMO) by the CBN, the scope of the money market has been expanded. The number of participants in the market institutions constitute the hub of the financial system. These institutions include discount houses, commercial and merchant banks, and special purpose banks, like the Nigerian Agriculture Co-operative and Rural Development and Community banks.