



CAPITAL BUDGETING & INFORMATION IMPEDIMENTS

Presenter

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Outline

- Background
- Techniques
- Information required
- Capital sources
- Information Impediment & impact
- Remedies
- Conclusion



Capital budgeting/investment appraisal

- Planning process used to determine whether a firm's long-term investments eg new plant, new product is worth funding from capitalization structure.

Importance

- Huge amounts involved
- Risks due to uncertainty
- Impact on profitability
- Scarcity of resources
- Rarely irreversible & if so at a substantial loss



Techniques

Use cash flow(discounted or otherwise)

- PBP-duration to cover initial investment
- $ARR = \frac{\text{Average Annual Profit}}{\text{Initial Investment}} * 100$
- $NPV = PVI - PVO$
- $PI = PVI / PVO$
- IRR-rate at which $NPV = 0$
- MIRR-used to overcome 2 limitations of IRR
 - ✓ Multiple IRR where + & - CFs are involved
 - ✓ Assume CFs reinvested at same rate of return as that of the project that generated them



Techniques...

$$\text{MIRR} = \sqrt[n]{\frac{\text{FV of positive cash flows at reinvestment rate}}{\text{PV of negative cash flows at cost of capital}}} - 1$$

Example: Assuming a 10% coc and a reinvestment rate of 12%, determine the MIRR of a project that promises

year	Cash flow
0	-1000
1	-4000
2	5000
3	2000



Technique...

DF for PV = $1/(1+r)^n$ & $(1+r)^n$ for FV

-PV of -cf @ 10% = 4636.36

-FV of +cf @ 12% = $5000(1.12) + 2000 = 7600$

-MIRR = $\sqrt[n]{\frac{FV}{PV}} - 1 = 17.91\%$

- Equivalent annuity method = NPV/PVAF - used to compare projects of unequal lives



Techniques...

Example: Consider a project with coc 12%, straight line depr profile with zero salvage and promises

Year	0	1	2	3	4
CF(000)	320	150	120	90	60

- $NDPBP = 2 + 50/90 = 2.56 \text{ years}$
- DPBP

Year	1	2	3	4	
DCF@12%	134	96	64	38	$\Sigma 332$

$$DPBP = 3 + 26/38 = 3.7 \text{ years}$$



Techniques...

- $NPV = 332 - 320 = 12$
- $PI = 332 / 320 = 1.04$
- IRR: at 16% $NPV = -10$ Therefore

$$IRR = 12\% + \left(\frac{12}{10} \right) 4\% = 14.18\%$$

- $ARR = \frac{12}{10} \div 1.04 \times 100 = 15.625\%$



Capital budgeting information

- Need for information
 - ✓ To do projections
 - ✓ Identify sources of funds (surplus)
 - ✓ Understand intermediation
 - ✓ Management of funds



Information required

- Cost of capital(minimum return)
- Cost behaviour-fixed or fluctuating
- Projected performance of projects/products
- Expected return
- Expected life
- History & management of lenders & borrowers-mumias
- Asset base of borrower
- Market info & competition (castle, mushrooms, quail)
- Restrictive covenants
- Legal (bank & insurance core capital)
- Political jurisdiction-Restrictions & prohibition
- Taxation-shield, thin capitalization
- Enviroment-riparian



Capital sources

- Own savings (retained earnings)
- Capital market-primary & secondary listing
- FIs including merchant Banks
- MFIs
- Venture capital-eVentures & pesapal, Fanisi & hillcrest
- REITs-Africa Reit, 'cytonn'
- Pension Funds & parastatals -govt
- Suppliers
- Foreign parent multinationals-Total 5.2B(2012)



Information impediments to capital budgeting: impact

- Impediment -hindrance/bar/slow down execution of decision/activity due to information defect/asymmetry/lack

Impacts:

- Rejection of application due to lack of trust (PPP)
- Rejection of worth project due to rigid restrictive covenants that are not responsive to business dynamics
- High cost of capital
 - ✓ Listing & underwriting
 - ✓ Insurance
 - ✓ Guarantees/documentary credit by banks
 - ✓ Expert fee
 - ✓ Collateral hence opportunity cost
 - ✓ Loan syndication



Impact...

- Risk analysis is difficult-exposure
- Interest rate discrimination
- Selective credit control-regulator requires financing certain sectors than others
- Equity gap-wealth rejecting to invest on equities of good performing small firms due to fear of exit route
- Poor pricing (safcom 14(16))
 - ✓ Insider trading-Davidson(KCB) & Uchumi
 - ✓ Herding
 - ✓ Market crash (1929-wall street;2008-global)



Remedies

- Listing
 - ✓ Primary & Secondary(rights)
 - ✓ Cross listing
- Derivatives
 - ✓ Option gives the buyer the right, *but not the obligation* to buy(call) or sell (put) a certain asset at a specific price at any time during the life of the contract
 - ✓ Futures gives the buyer the *obligation* to purchase a specific asset, and the seller to sell and deliver that asset at a specific future date, unless the holder's position is closed prior to expiration.
 - ✓ Swaps



Remedies...

- (Reverse) share split
- Preference capital with options
- SBB of fixed securities
- Maintain a forex account
- Technology-credit information sharing & social media
- Good image
 - ✓ Corporate governance (trust)
 - ✓ Corporate philanthropy-Equity
 - ✓ Avoid adverse publicity-NBK, mumias
- Mergers & acquisitions
 - ✓ Local-old mutual: UAP & faulu)
 - ✓ Cross border trading-Equity & 79% ProCredit in DRC
 - ✓ Buy existing brand-brookside, yu



Remedies...

- Invest in technical personnel
- Asset securitization
- Enviroment-NEMA
- Unit trusts
- Innovation (Financial or otherwise)
 - ✓ Agency banking
 - ✓ Mobile banking/mpesa
 - ✓ Bond purchase thru mobile phones
 - ✓ Bancassurance
 - ✓ Greenhouse
 - ✓ Disease resistant crops



Conclusion

Modern management accountant should be well knowledgeable on PESTLE issues & team player to rightfully & competently advice the top management in making decisions that give the firm a competitive advantage towards wealth maximization



END OF PRESENTATION

THANK YOU FOR YOUR ATTENTION

Q&A