PERENCANAAN KEUANGAN
Bag (1) : Financial Projection
Session 07

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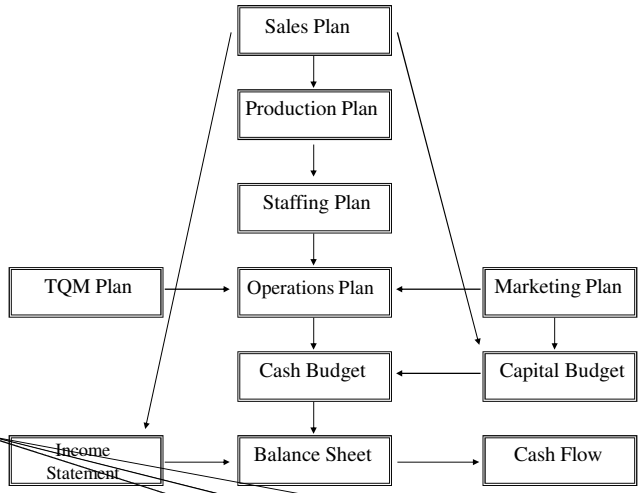
Surakarta, 2010

The Financials

Numbers are merely the reflection of . . .

the decisions you make.

Financial Flow Chart



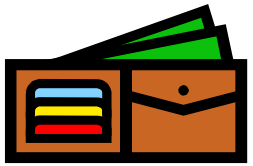
Numbers represent *your* decisions

Every business decision leads to . . .
a number,
which taken together form the basis of . . .
your financials.

Can I use my Visa card to pay for my MasterCard bill?

imbroke

What do you mean I'm broke?



I still have checks!

imbroke

Getting control of your finances

1. Read your statements.
2. Set policies and stick with them.
3. Use automation where practical.
4. Do not be afraid to get help.

Remember YOU are making management decisions based on this information.

Types of Financial Forms

1. Income Statement - are we making a profit?
2. Cash Flow Projections - can we pay our bills?
3. Balance Sheet - how much are we worth?

General Financial Terms you should know

Accounts payable	Current liabilities
Accounts receivable	Debt
Accumulated depreciation	Depreciation
Assets	Equity
Assets current	Fixed costs
Assets fixed	Gross profit
Cash	Liabilities
Cost of goods	Long term liabilities

General Financial Terms *continued*

Net profit
Net worth
Other or Intangible assets
Profit
Pro forma
Others?

Guidelines for Preparing Your Financials

1. Be conservative
2. Be honest
3. Use standard terminology
4. Get realistic advice
5. Follow practices in your industry
6. Choose the appropriate accounting method
7. Be consistent

Income or P & L Statement

Income:
Gross Sales - Returns & Allowances = Net Sales
- Cost of Goods = Gross Profit

Expenses: -
Salaries & wages; Employee benefits; Payroll taxes
Sales Commissions; Professional Services; Rent;
Maintenance; Equipment Rental; Furniture &
Equipment; Depreciation and Amortization; Insurance;
Interest; Utilities; Telephone; Office supplies; Postage
and Shipping; Marketing & Advertising; Travel; Other.

Net income before taxes
- Provision for taxes on income

Net Income After Taxes (Net Profit)

Cash-Flow Projections

Why is this the single most important financial statement?

If you can't pay your bills, you are not going to stay in business.

Cash-Flow Items

Cash sales
Collections
Interest Income
Loan proceeds
Cost of goods
Operating expenses
Reserve
Owner's draw
Net cash flow
Opening cash balance

The Balance Sheet

Provides a snapshot of the overall financial worth of the company.

It accounts for all the company's assets minus all the company's liabilities.

The remaining amount is figured to be the net worth of the company.

Sources and Use of Funds

Equity Financing: selling ownership via . . .
- Preferred stock
- Common Stock

Debt Financing: taking out loans via . . .
- Mortgage loans
- Short and Long Term Loans

Investment from Principals: you or other key individuals will contribute

Assumption Sheet

Contains information you have already gathered.

Total sales per product line
Total payroll costs
Calculate gross margin per product line
Total costs and timing for additional expenses
Changes in costs or timing of financing
Other costs such as . . .

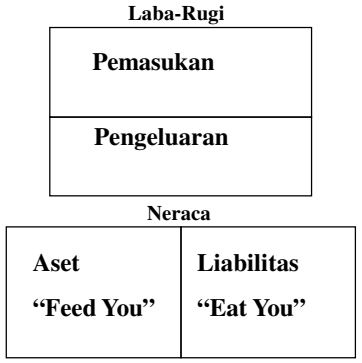
Break Even Analysis

Why do you need to know this?

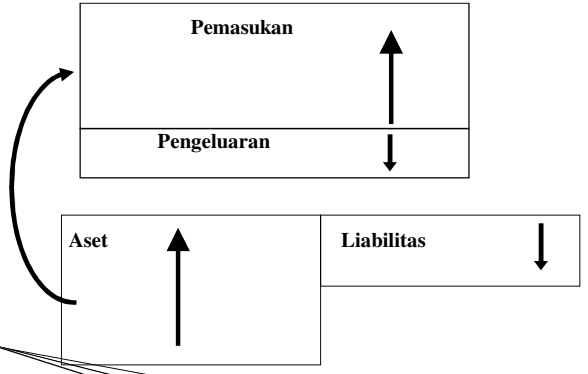
You need to know . . .

Fixed expenses
and
Gross profit margin (GPM)

Pengelolaan Keuangan Keluarga & Bisnis



Tujuan pengelolaan keuangan



Jenis Pemasukan

- Kerja untuk majikan
- Kerja profesional (Self employed)
- Pendapatan pasif
- Pendapatan usaha

Bagaimana meningkatkannya?

Jenis Pengeluaran

- Pajak
- Pemborosan
- Keinginan
- Kebutuhan

Bagaimana menurunkannya?

Jenis Liabilitas

- Pinjaman untuk konsumtif
- Gaya hidup berlebihan (yang belum saatnya)
- "Aset" tidak produktif
- ...

Bagaimana mengubahnya menjadi aset?

Jenis Aset

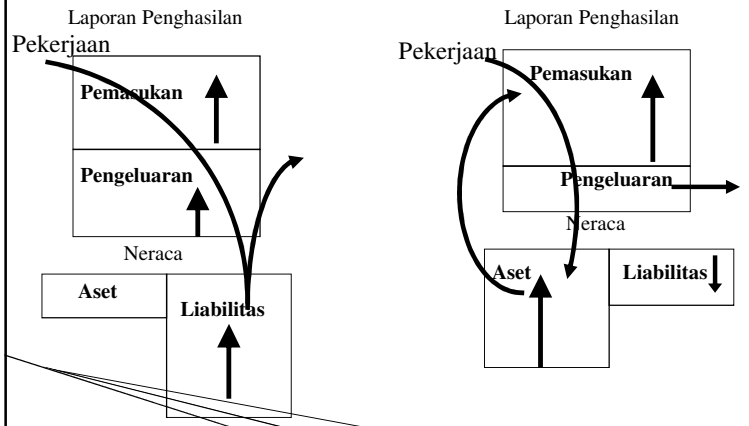
	HASIL	KAPITAL	LIKUIDITAS
Gaji	+	+++	tidak
Kertas	+	-	tinggi
Properti	+	+	rendah
Bisnis	++/--	++/--	rendah-tinggi

Leverage & Resiko
(Identifikasi Peluang Usaha)

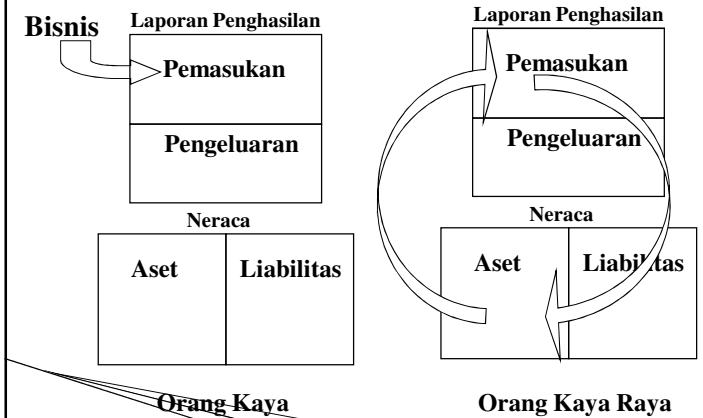
"PROJECT VS EVERGREEN"

- Memenuhi kebutuhan orang lain
- Melihat apa yang tidak dilihat orang lain
- Membeli murah menjual harga pasaran
- Mengambil (bersihkan) Resiko
- Menentang arus (hindari "panic b/s")
- Memperpanjang rantai nilai tambah
- ...
- Memecahkan teka-teki 10/90 (kreatif)
- Mencari leverage investasi yang lebih besar

Cash Flow (1)



Cash Flow (2)



Tugas 07 :

- Kelompok @ 5 orang (1 minggu)
  Melanjutkan Tugas 06 buatlah
  - ***Finacial Projection (1)***

dari " Proposal Ide Bisnis " yang Anda Pilih!.

Jawaban di e-mail dalam *attachment* file ke : didiek_sw@yahoo.com

Terimakasih

PERENCANAAN KEUANGAN
Bag (2) : Financial Evaluation
Session 08

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Project Evaluation: Alternative Methods

- Payback Period (PBP)
- Internal Rate of Return (IRR)
- Net Present Value (NPV)
- Profitability Index (PI)

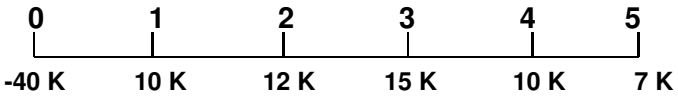
Proposed Project Data

Julie Miller is evaluating a new project for her firm, *Basket Wonders (BW)*. She has determined that the after-tax cash flows for the project will be $10,000; $12,000; $15,000; $10,000; and $7,000, respectively, for each of the Years 1 through 5. The initial cash outlay will be $40,000.

Independent Project

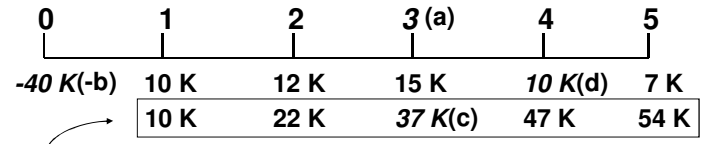
- **For this project, assume that it is <u>independent</u> of any other potential projects that *Basket Wonders* may undertake.**
  - <u>Independent</u> -- A project whose acceptance (or rejection) does not prevent the acceptance of other projects under consideration.

Payback Period (PBP)



PBP is the period of time required for the cumulative expected cash flows from an investment project to equal the initial cash outflow.

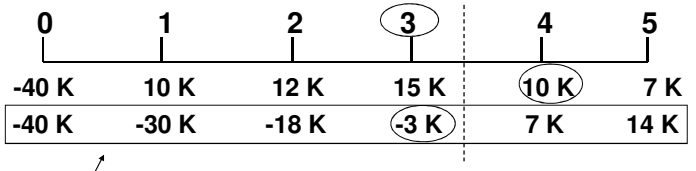
Payback Solution (#1)



Cumulative Inflows

PBP = a + (b - c) / d
= 3 + (40 - 37) / 10
= 3 + (3) / 10
= 3.3 Years

Payback Solution (#2)



Cumulative Cash Flows

PBP = 3 + (3K) / 10K
= 3.3 Years

Note: Take absolute value of last negative cumulative cash flow value.

PBP Acceptance Criterion

The management of *Basket Wonders* has set a maximum PBP of 3.5 years for projects of this type. Should this project be accepted?

Yes! The firm will receive back the initial cash outlay in less than 3.5 years. [3.3 Years < 3.5 Year Max.]

PBP Strengths and Weaknesses

Strengths:

- Easy to use and understand
- Can be used as a measure of liquidity
- Easier to forecast ST than LT flows

Weaknesses:

- Does not account for TVM
- Does not consider cash flows beyond the PBP
- Cutoff period is subjective

Internal Rate of Return (IRR)

IRR is the discount rate that equates the present value of the future net cash flows from an investment project with the project's initial cash outflow.

$$ICO = \frac{CF_1}{(1+IRR)^1} + \frac{CF_2}{(1+IRR)^2} + \ldots + \frac{CF_n}{(1+IRR)^n}$$

IRR Solution

$$\$40{,}000 = \frac{\$10{,}000}{(1+IRR)^1} + \frac{\$12{,}000}{(1+IRR)^2} + \frac{\$15{,}000}{(1+IRR)^3} + \frac{\$10{,}000}{(1+IRR)^4} + \frac{\$7{,}000}{(1+IRR)^5}$$

Find the interest rate (*IRR*) that causes the discounted cash flows to equal $40,000.

IRR Solution (Try 10%)

$40,000 = $10,000($PVIF_{10\%,1}$) + $12,000($PVIF_{10\%,2}$) + $15,000($PVIF_{10\%,3}$) + $10,000($PVIF_{10\%,4}$) + $ 7,000($PVIF_{10\%,5}$)

$40,000 = $10,000(.909) + $12,000(.826) + $15,000(.751) + $10,000(.683) + $ 7,000(.621)

$40,000 = $9,090 + $9,912 + $11,265 + $6,830 + $4,347

= **$41,444** [*Rate is too low!!*]

IRR Solution (Try 15%)

$40,000 = $10,000($PVIF_{15\%,1}$) + $12,000($PVIF_{15\%,2}$) + $15,000($PVIF_{15\%,3}$) + $10,000($PVIF_{15\%,4}$) + $ 7,000($PVIF_{15\%,5}$)

$40,000 = $10,000(.870) + $12,000(.756) + $15,000(.658) + $10,000(.572) + $ 7,000(.497)

$40,000 = $8,700 + $9,072 + $9,870 + $5,720 + $3,479

= **$36,841** [*Rate is too high!!*]

IRR Solution (Interpolate)

.05 **X** [.10 $41,444 / IRR $40,000 / .15 $36,841] **$1,444** $4,603

X $1,444 .05

$4,603

___ = _____

IRR Solution (Interpolate)

.05 **X** [.10 $41,444 / IRR $40,000 / .15 $36,841] **$1,444** $4,603

X $1,444 .05

$4,603

___ = _____

IRR Solution (Interpolate)

$$.05 + \left[X \left[\begin{matrix} .10 & \$41,444 \\ IRR & \$40,000 \\ .15 & \$36,841 \end{matrix} \right] \$1,444 \right] \$4,603$$

$$X = \frac{(\$1,444)(0.05)}{\$4,603} \qquad X = .0157$$

IRR = .10 + .0157 = .1157 or 11.57%

IRR Acceptance Criterion

The management of *Basket Wonders* has determined that the hurdle rate is 13% for projects of this type. Should this project be accepted?

No! The firm will receive 11.57% for each dollar invested in this project at a cost of 13%. [IRR < Hurdle Rate]

IRR Strengths and Weaknesses

Strengths:

- Accounts for TVM
- Considers all cash flows
- Less subjectivity

Weaknesses:

- Assumes all cash flows reinvested at the IRR
- Difficulties with project rankings and Multiple IRRs

Net Present Value (NPV)

NPV is the present value of an investment project's net cash flows minus the project's initial cash outflow.

$$NPV = \frac{CF_1}{(1+k)^1} + \frac{CF_2}{(1+k)^2} + \ldots + \frac{CF_n}{(1+k)^n} - ICO$$

NPV Solution

Basket Wonders has determined that the appropriate discount rate (k) for this project is 13%.

$$NPV = \frac{\$10,000}{(1.13)^1} + \frac{\$12,000}{(1.13)^2} + \frac{\$15,000}{(1.13)^3} + \frac{\$10,000}{(1.13)^4} + \frac{\$7,000}{(1.13)^5} - \$40,000$$

NPV Solution

NPV = $10,000($PVIF_{13\%,1}$) + $12,000($PVIF_{13\%,2}$) + $15,000($PVIF_{13\%,3}$) + $10,000($PVIF_{13\%,4}$) + $7,000($PVIF_{13\%,5}$) - **$40,000**

NPV = $10,000(.885) + $12,000(.783) + $15,000(.693) + $10,000(.613) + $7,000(.543) - **$40,000**

NPV = $8,850 + $9,396 + $10,395 + $6,130 + $3,801 - **$40,000**

= - **$1,428**

NPV Acceptance Criterion

The management of *Basket Wonders* has determined that the required rate is 13% for projects of this type. Should this project be accepted?

No! The NPV is negative. This means that the project is reducing shareholder wealth. [***Reject*** as ***NPV*** < *o*]

NPV Strengths and Weaknesses

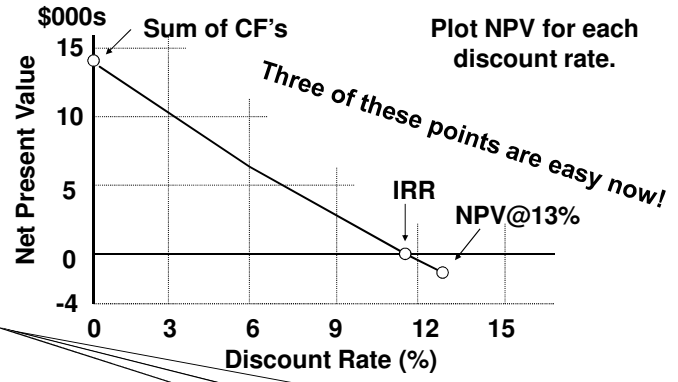
Strengths:

- Cash flows assumed to be reinvested at the hurdle rate.
- Accounts for TVM.
- Considers all cash flows.

Weaknesses:

- May not include managerial options embedded in the project. See Chapter 14.

Net Present Value Profile



Profitability Index (PI)

PI is the ratio of the present value of a project's future net cash flows to the project's initial cash outflow.

$$PI = \left[\frac{CF_1}{(1+k)^1} + \frac{CF_2}{(1+k)^2} + \ldots + \frac{CF_n}{(1+k)^n} \right] \div$$

<< OR >>

$$PI = 1 + [\ NPV \ / \ ICO\ ]$$

PI Acceptance Criterion

PI = $38,572 / $40,000
= .9643 *(Method #1, 13-33)*

Should this project be accepted?

No! The PI is less than 1.00. This means that the project is not profitable. [*Reject* as *PI < 1.00*]

PI Strengths and Weaknesses

Strengths:
- Same as NPV
- Allows comparison of different scale projects

Weaknesses:
- Same as NPV
- Provides only relative profitability
- Potential Ranking Problems

Evaluation Summary

***Basket Wonders* Independent Project**

Method	Project	Comparison	Decision
PBP	3.3	3.5	**Accept**
IRR	11.47%	13%	**Reject**
NPV	-$1,424	$0	**Reject**
PI	.96	1.00	**Reject**

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  Melanjutkan Tugas 07 buatlah
  - ***Finacial Evaluation (2)***

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