



Cyprus Entrepreneurship Competition CyEC 2006

Financing HTSF Start Ups



Dr Panikkos Poutziouris

Associate Professor in Entrepreneurship & Family Business , CIIM
Visiting Fellow, Manchester Business School

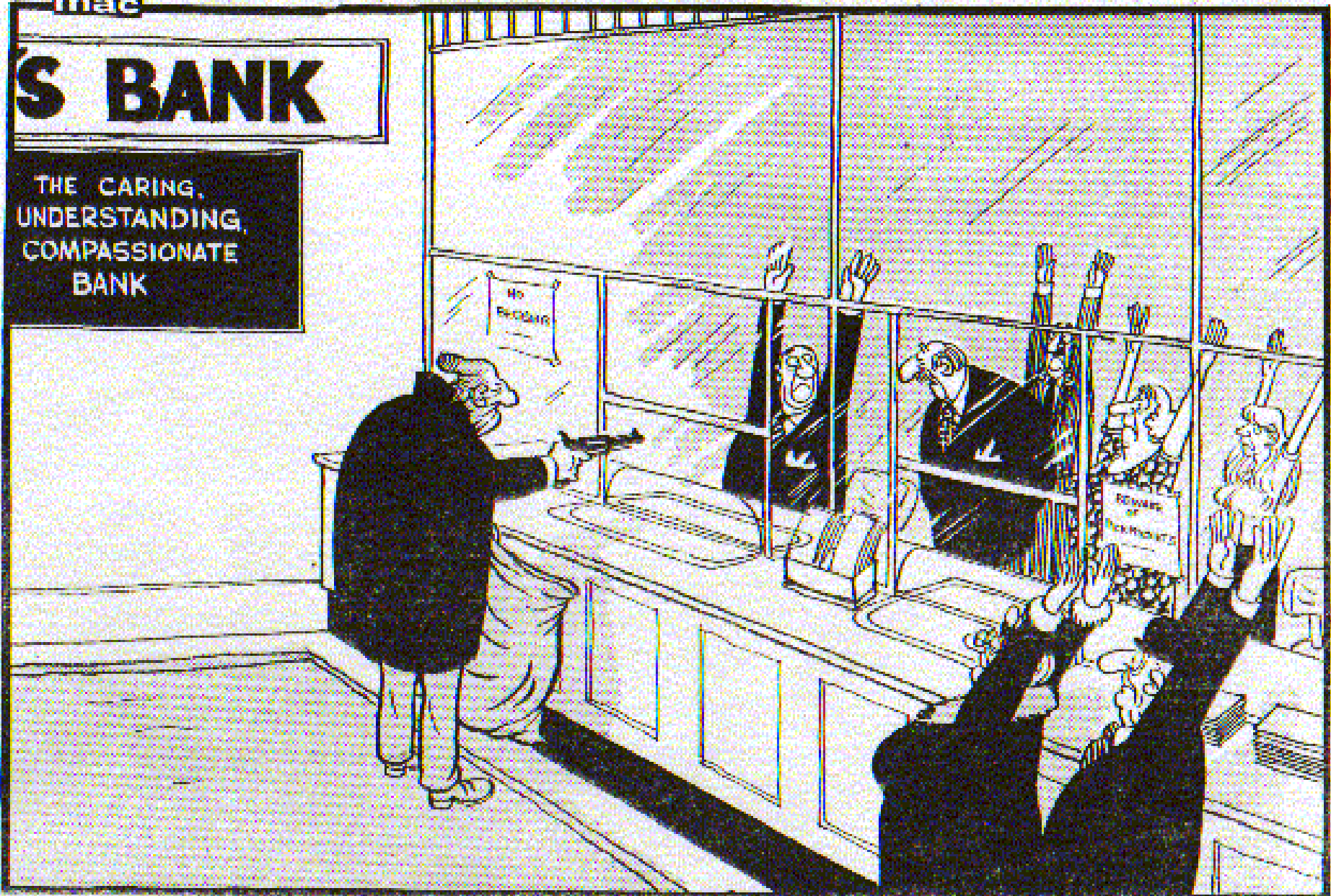


Cyprus International
Institute of Management

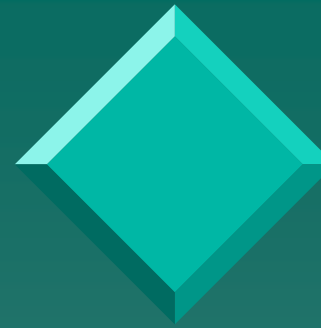
mac

S BANK

THE CARING,
UNDERSTANDING,
COMPASSIONATE
BANK



'Give him the money, Hoskins. We are in the same business after all . . .'



Lessons - Practical Insights

- **To understand small business finance parameters**
- **To master – evolving - capital needs**
- **To identify sources of finance – for start ups**
- **To understand capital structure : risk - returns**
- **To consider funding policies – behaviours**
- **To identify sources of help for start ups**
- **Practical Lessons : Integral Vision Ltd**



Structure of Presentation

- Sources of Finance
- Money route - Capital Ladder
- Gestation period
- Stages of Growth
- Debt versus Equity
- Risk profile of investors
- Cash is king
- Bootstrapping techniques



BIBLIOGRAPHY

- Birley & Muzyka (1999) Mastering Entrepreneurship, FT Pitmans Publishing
- J. Timmons (1999) New Venture Creation, Mcgraw-Hill
- Churchill and Lewis (1983) "Five Stages of Small Business Growth", HBR, May-June.
- Longenecker et al (2000) Small Business Management, South Western Publishing
- Wickham Philip (2001) Strategic Entrepreneurship 2nd Edition , FT Prentice Hall
- P.Burns (2001) Entrepreneurship & Small Business. Palgrave
- Burns and Morris ((1995) Business Finance, Butterworth and Heineman
- Palo Alto software - www.bplans.com



Factors hampering start ups

- ❖ *There are a few business ideas*
- ❖ *Technical risks*
- ❖ *Poor entrepreneurial culture*
- ❖ *Stab guys feel safe & comfortable in their jobs*
- ❖ *Stab guys are weak on the financials*
- ❖ *Lack of VC money for start ups*
- ❖ *Commercial risk*
- ❖ *Lack of training in entrepreneurial matters*
- ❖ *High cost of adm procedures –red tape*
- ❖ *Crowded competitive arena*
- ❖ *Others.....*



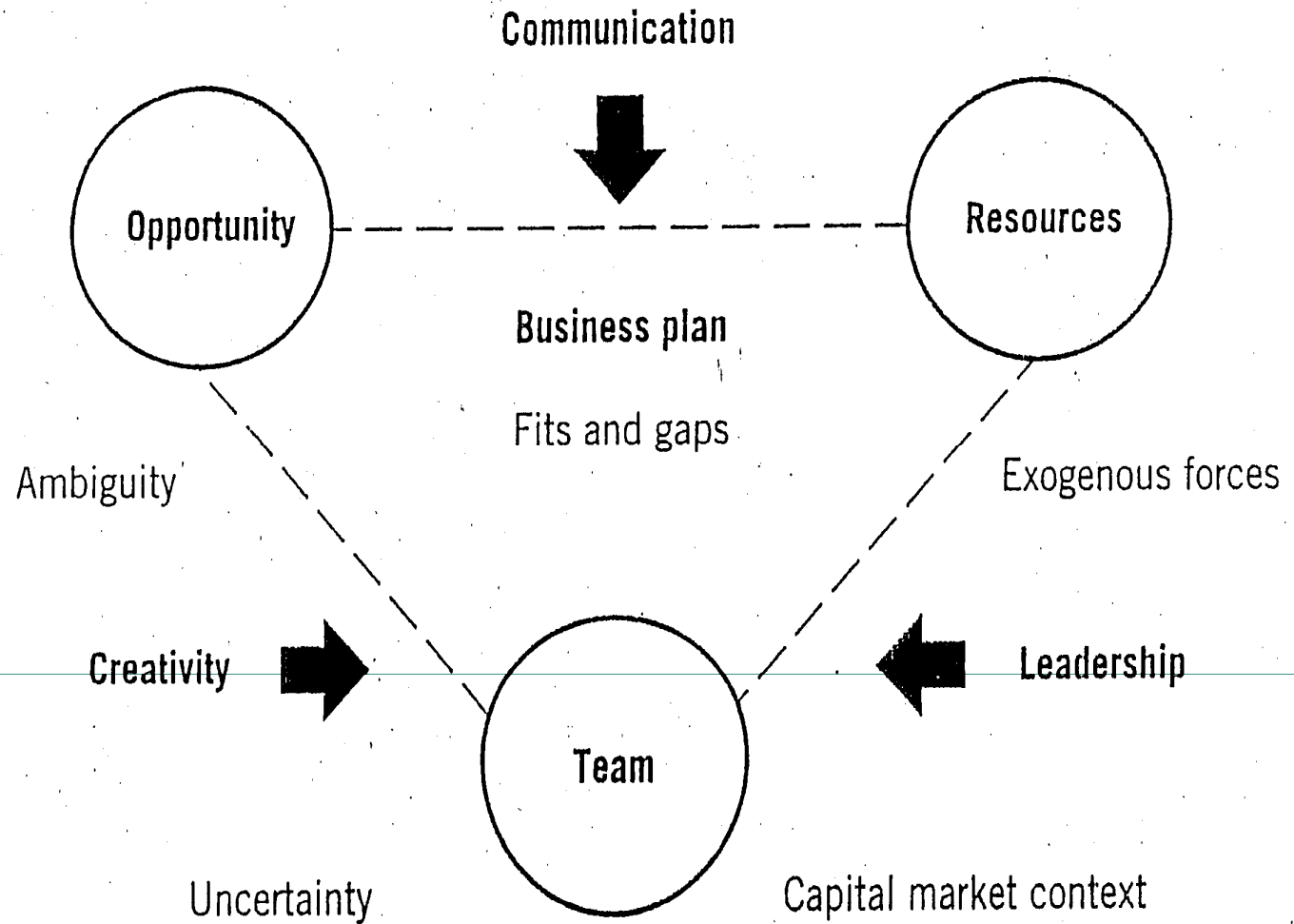
Financial Needs by Type of Firm

VENTURES	FIXED CAPITAL	WORKING CAPITAL	FINANCIAL NEEDS
BETTING SHOP	premises (leasing ?) computers	wages	very low
RETAIL SHOP	premises fixtures	stock debtors (creditors)	fairly low
TAXI FIRM	<i>cars</i> <i>radios</i>	<i>wages</i> <i>debtors</i>	<i>low</i>
MAIL ORDER	premises (leasing ?) computers	wages stock debtors (creditors)	<i>medium</i>
HIGH TECH COOLING SYSTEMS	premises showroom plant, cam computers	wages stock debtors (creditors)	<i>very high</i>

Organic- INVESTMENT	ASSET	FINANCE
land, buildings premises offices	tangible assets	equity LR-loans
equipment, motor vans	tangible assets	equity LR-loans (leasing)
R/D, patents copyrights	intangible assets (goodwill)	equity profits
pensions shares	capital investment	profits
raw materials WIP products	working capital	SR loans overdraft
debtors	working capital	SR loans overdraft factoring
wages	Operating expenses	cash overdraft

EXHIBIT 2.7

Timmons Model of the Entrepreneurial Process



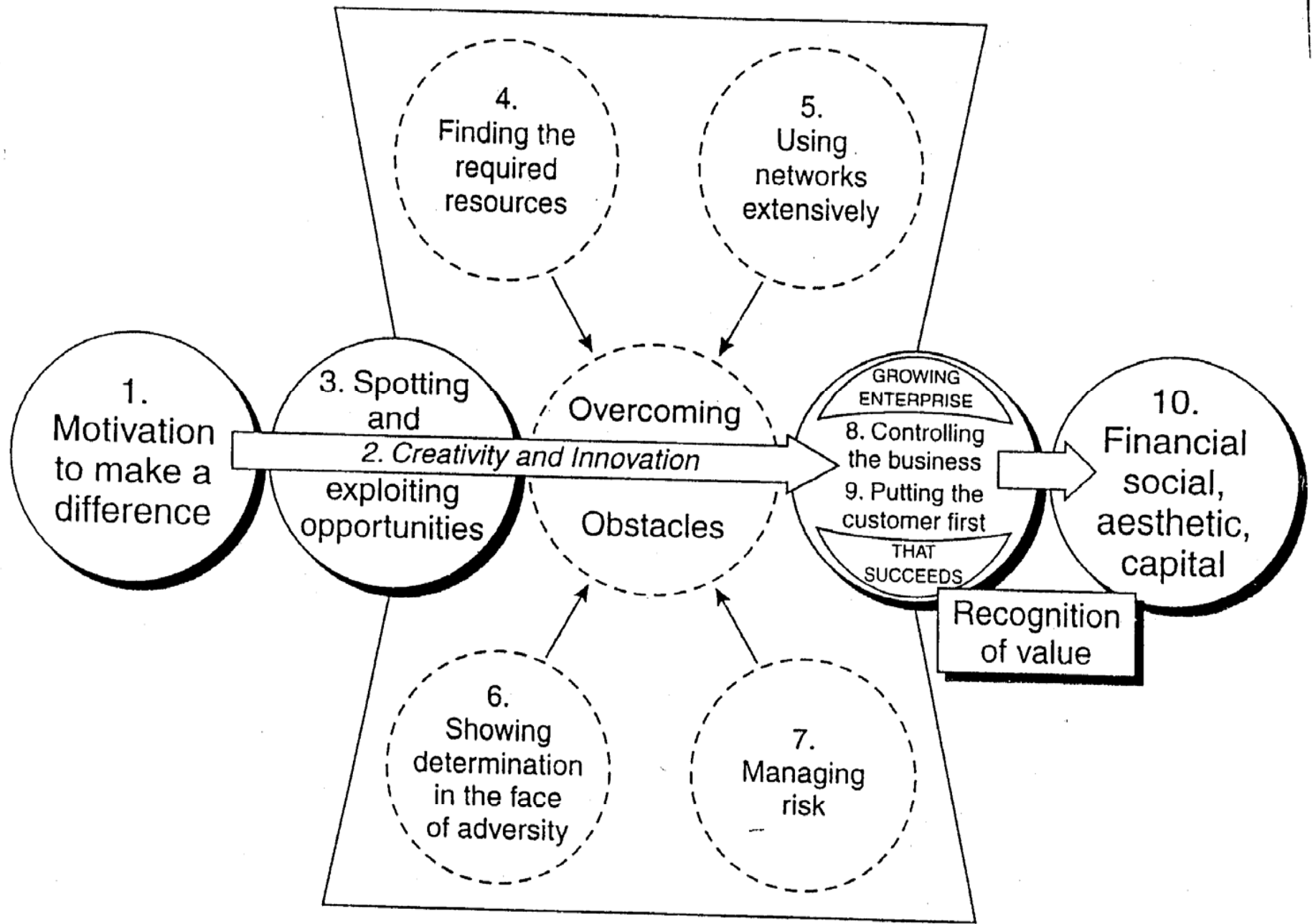
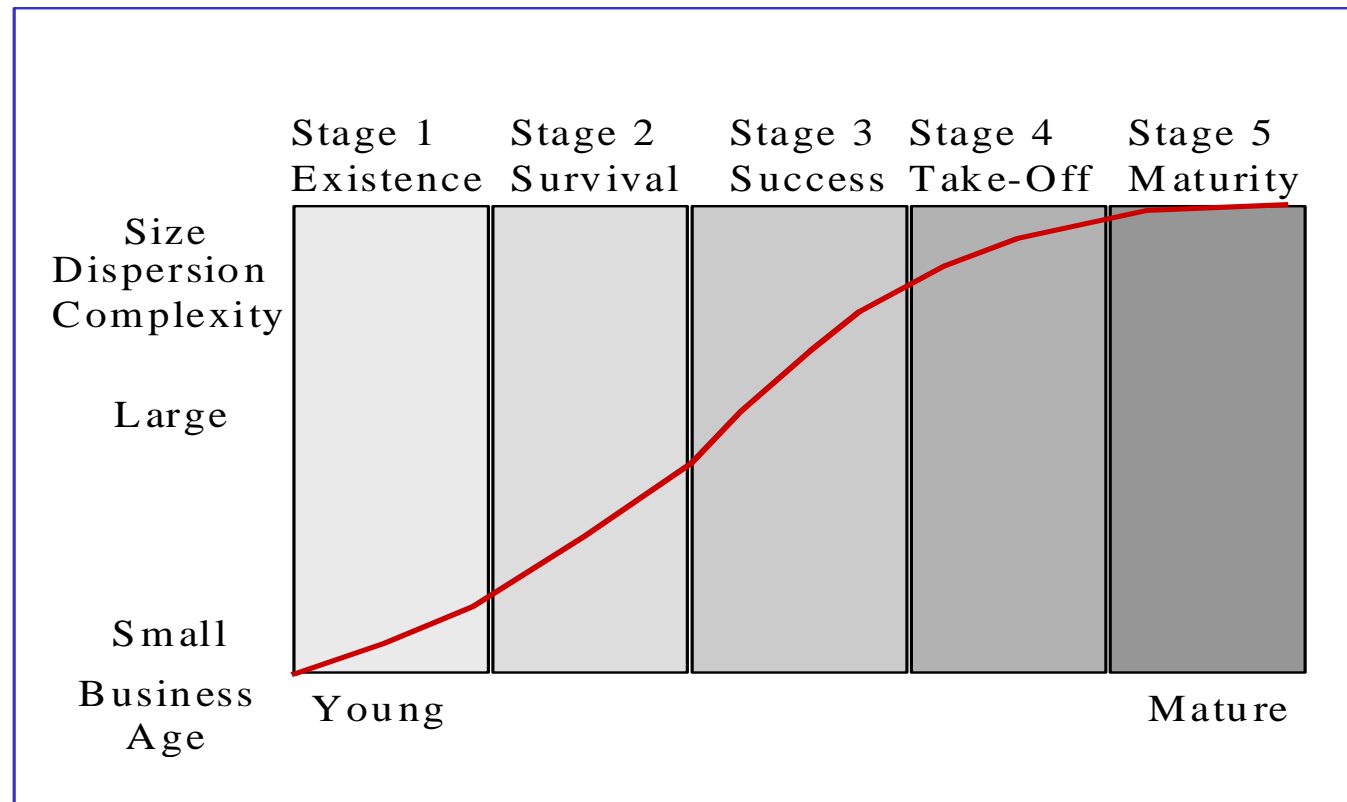


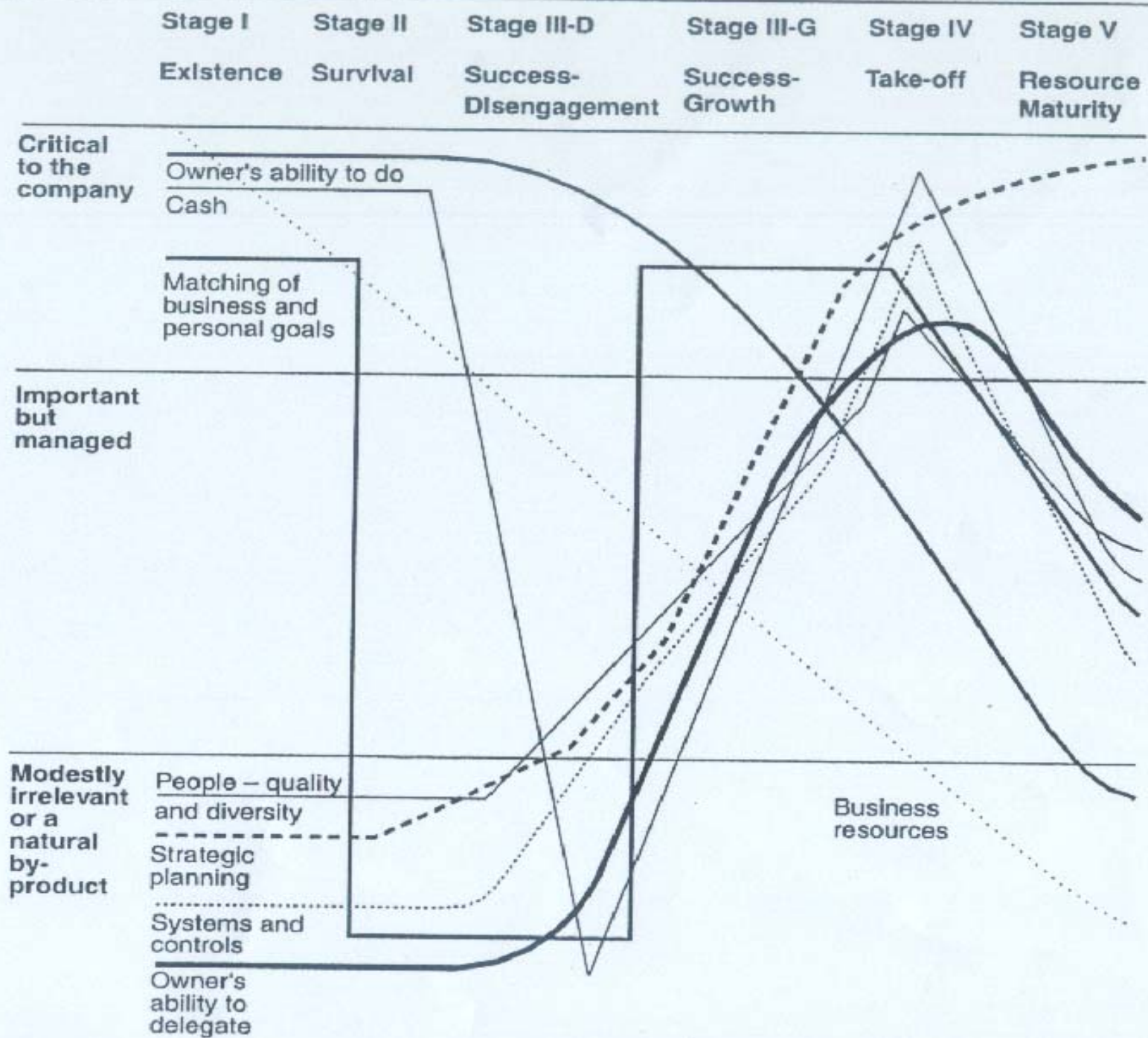
Figure 1.1 The entrepreneur process diagram



SMALL BUSINESS GROWTH MODEL



Churchill and Lewis, HBR, 1983





FINANCIAL MANAGEMENT CASH ECONOMICS OF NEW GROWTH VENTURES

£



*Capital
burning*

Sales

Cash

TIME



Small Business Growth, Profit and Cash trends

<i>Development Stage</i>			
<i>Start Up</i>	<i>Early Growth</i>	<i>Fast Growth</i>	<i>Maturity Decline</i>
<i>No profits</i>	<i>Emerging Profits</i>	<i>Rising Profits</i>	<i>Declining Profits</i>
<i>Cash Burning</i>	<i>Cash Absorbing</i>	<i>Cash Generative</i>	<i>Cash milking</i>

- ❖ Internally Generated Funds: Net income or profits after taxes earned over an accounting period
- ❖ Sustainable Sales Growth Rate: Rate at which a firm can grow sales based on the retention of profits in the business



Cash Flow is King

+
Cash Flow

Profits

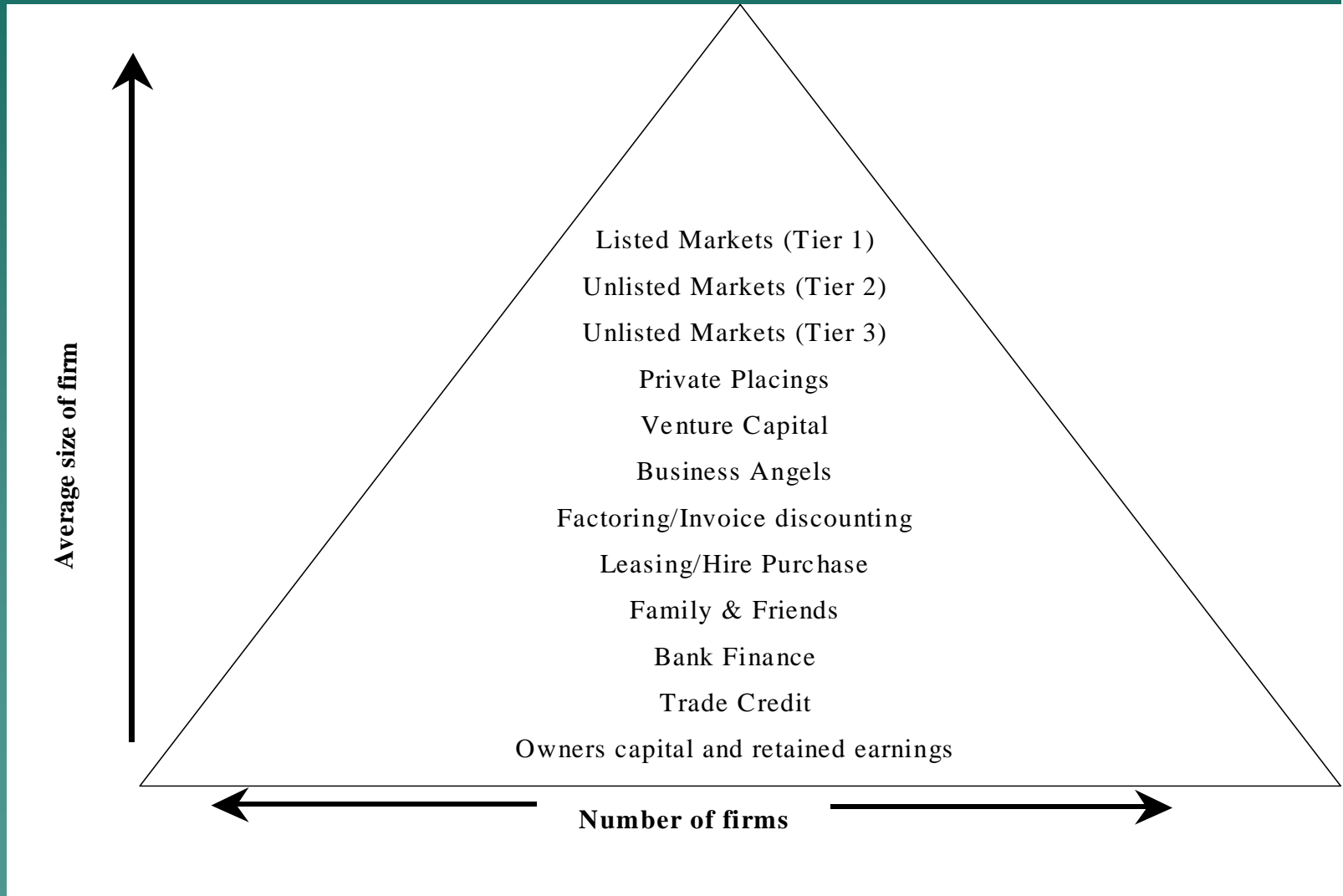
Essential	Essential
Desirable	Essential

Short Term

Long Term



The ladder of finance



Funding Routes



A Financial Chronology of Amazon.com

Price/Share

\$52.11 (exercise price on loan warrants)

\$1,327.5 (in April 1999, adjusted for two stock splits)

\$18

\$2.3417

\$.3333

\$.3333

\$.1287

\$.1717

\$.001

July
1994

Founder

Jeff Bezos starts Amazon.com; he invests \$10,000 and borrows \$44,000

February
1995

Family

Founder's father and mother invest a combined \$245,500

August
1995

**Business
Angels**

Two angels invest a total of \$54,408

December
1995

**Angel
Syndicate**

Twenty angels invest \$46,850 each on average, for a total of \$937,000

May
1996

Family

Founder's siblings invest \$20,000

June
1996

**Venture
Capitalists**

Two venture capital funds invest \$8 million

May
1997

IPO

Three million shares are offered on the equity market, raising \$49.1 million

December
1997

**Loan & Bond
Issue**

\$326 million bond issue is used to retire \$75 million in loan debt and to finance operations

Funding Map The Leleux Models	VC		Angels		Family Friends		Public equity		Trade credit		Asset loans		State Schemes	
Relative score 1-10	Low high		Low high		Low high		Low high		Low high		Low high		Low high	
Cost of money	8	10	6	8	5	8	2	5	0	2	1	3	0	3
Fund-raising expenses	0	2	4	6	3	6	7	10	0	2	3	5	6	9
Depth of pocket	7	9	5	7	3	5	8	10	0	3	1	4	1	4
Collateral requirements	0	2	1	3	1	3	0	3	2	5	7	10	0	3
Risk-bearing abilities	7	10	6	8	3	6	5	8	0	2	0	3	3	6
Reputation and signalling	8	10	5	7	0	3	5	8	0	3	0	3	0	2
Management skills	7	10	5	7	0	4	0	5	0	2	0	3	0	3
Speed of decision	7	9	5	7	3	5	3	6	6	9	7	10	6	10
Industry knowledge	7	9	5	7	1	5	1	4	6	9	5	8	0	3
Flexibility of deal	7	9	6	8	5	8	1	4	0	3	0	3	0	3
Other resources	7	9	5	7	2	5	1	4	0	3	0	3	1	4
Control tendencies	7	9	5	7	3	6	1	3	0	2	0	2	1	4



SOURCE OF SEED CAPITAL

<i>CAPITAL</i>	<i>%</i>
<i>personal savings</i>	78.5
<i>bank loans</i>	14.4
<i>family members</i>	12.9
<i>employees/partners</i>	12.4
<i>friends</i>	9.0
<i>venture capital</i>	6.3
<i>mortgaged property</i>	4.0
<i>“soft-loans”, LGS</i>	1.1
<i>other sources</i>	3.4

□ *Source: Inc, October 1992*

USA: Berger and Udell (1995)

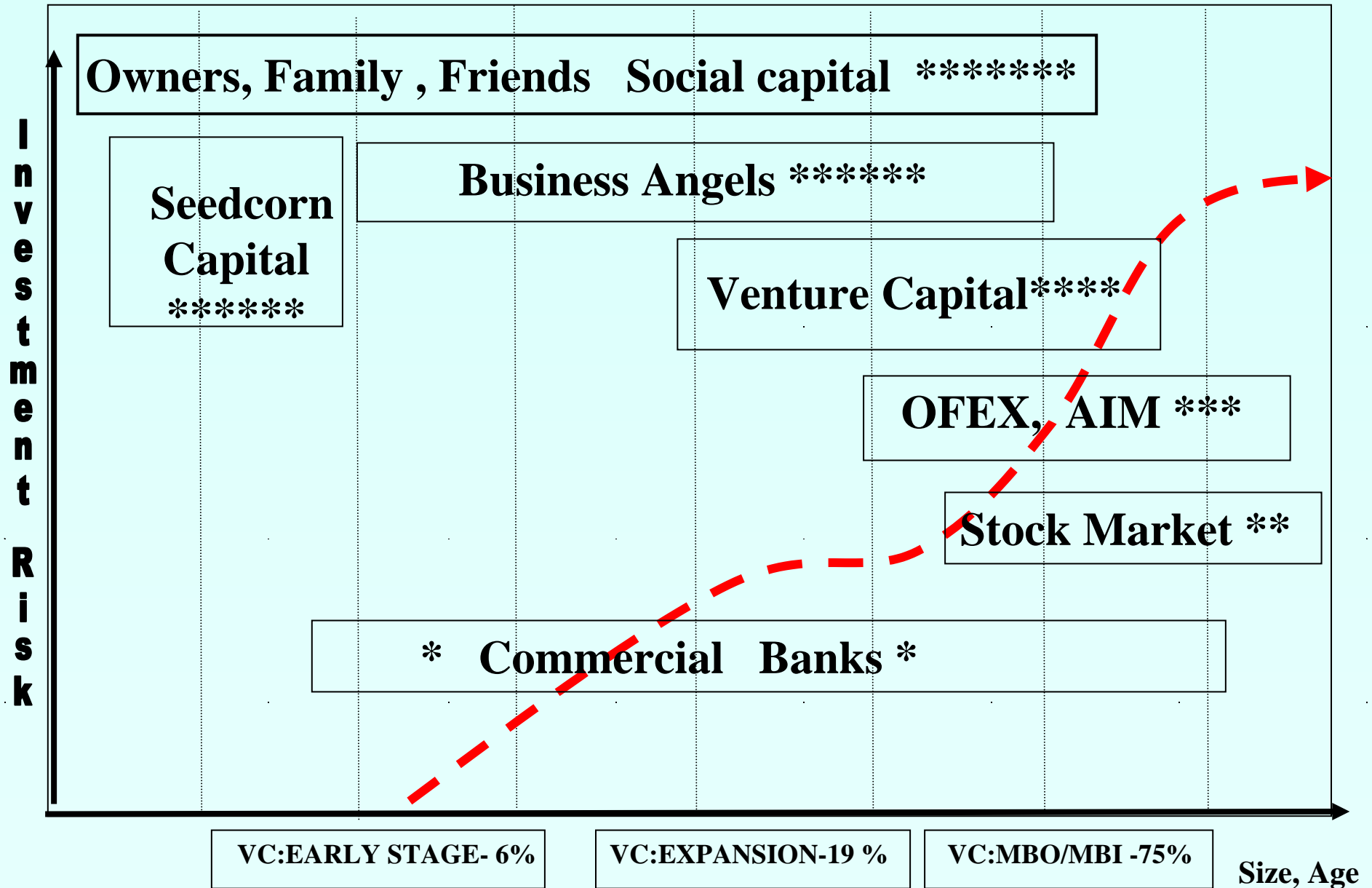
START-UP & SMALL BUSINESS FINANCING



<i>Source</i>	<i>Amount \$b</i>	<i>%</i>
<i>Principal owner</i>	<i>524.3</i>	<i>31.33</i>
<i>Angel finance</i>	<i>60</i>	<i>3.59</i>
<i>Venture Capital</i>	<i>31</i>	<i>1.85</i>
<i>Other equity</i>	<i>215.2</i>	<i>12.86</i>
<i>TOTAL EQUITY</i>	<i>830.6</i>	<i>49.64</i>
<i>Commercial banks</i>	<i>313.8</i>	<i>18.75</i>
<i>Finance companies</i>	<i>82.1</i>	<i>4.91</i>
<i>Other institutions</i>	<i>50.1</i>	<i>2.99</i>
<i>Trade credit</i>	<i>264.1</i>	<i>15.78</i>
<i>Other business finance</i>	<i>82.1</i>	<i>4.91</i>
<i>Government</i>	<i>8.1</i>	<i>0.48</i>
<i>From principal owners</i>	<i>68.5</i>	<i>4.09</i>
<i>Credit cards</i>	<i>2.4</i>	<i>0.14</i>
<i>Other individuals</i>	<i>24.5</i>	<i>1.46</i>
<i>TOTAL DEBT</i>	<i>842.9</i>	<i>50.37</i>

FINANCING ENTREPRENEURIAL DEVELOPMENT

INCEPTION R-D START-UP SURVIVAL SUCCESS-D SUCCESS-G TAKE-OFF MATURITY





MAIN TYPES OF BANK FINANCE USED BY SMALL FIRMS ?

- ❑ **Overdraft** (business & personal security)
- ❑ **Short-term (SR) loans** floating charges:
- ❑ **MR and LR loans** FA: 70%, CA: 50%
- ❑ **Mortgage Finance** (asset based)
- ❑ **Hire Purchase Finance** (asset based)
- ❑ **Leasing** (asset based)
- ❑ **Factoring** (debtors based)

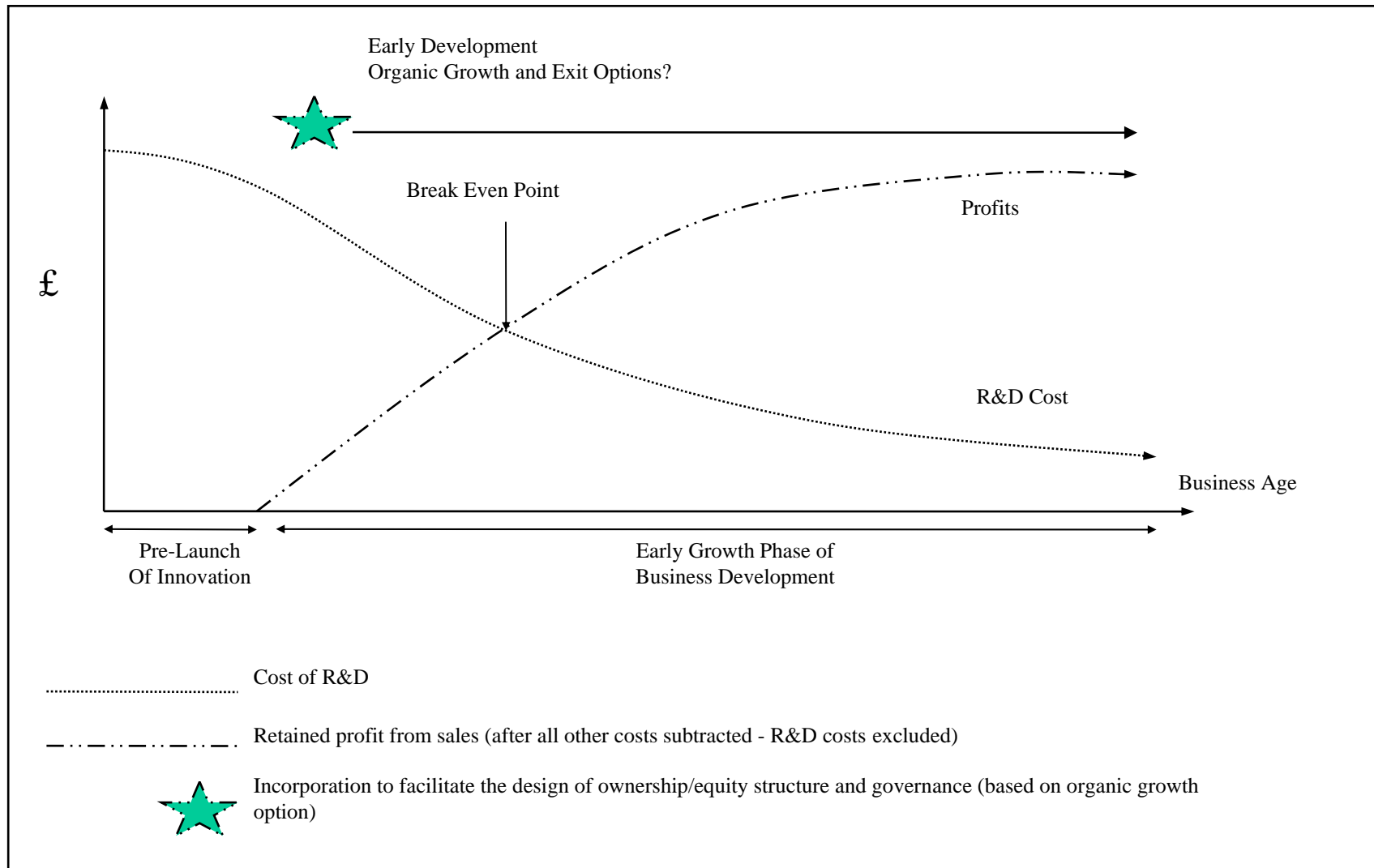
- ❑ **Risky Equity Investment** (portfolio, selective SMEs)



SMALL BUSINESS RISK

- ❑ **start-up**
- ❑ **high tec (tech evolving)**
- ❑ **No IPR protection**
- ❑ **subcontracting (100%)**
- ❑ **solo-product model**
- ❑ **single-supplier**
- ❑ **local customer base**
- ❑ **super-fast growth**
- ❑ **esoteric and familial**
- ❑ **no succession planning**
- ❑ **under-capitalised (no equity base)**
- ❑ **ltd financial expertise**
- ❑ **no insurance policy**

HTSFs – The Gestation Challenge



The Survival Rate of VAT-registered Firms

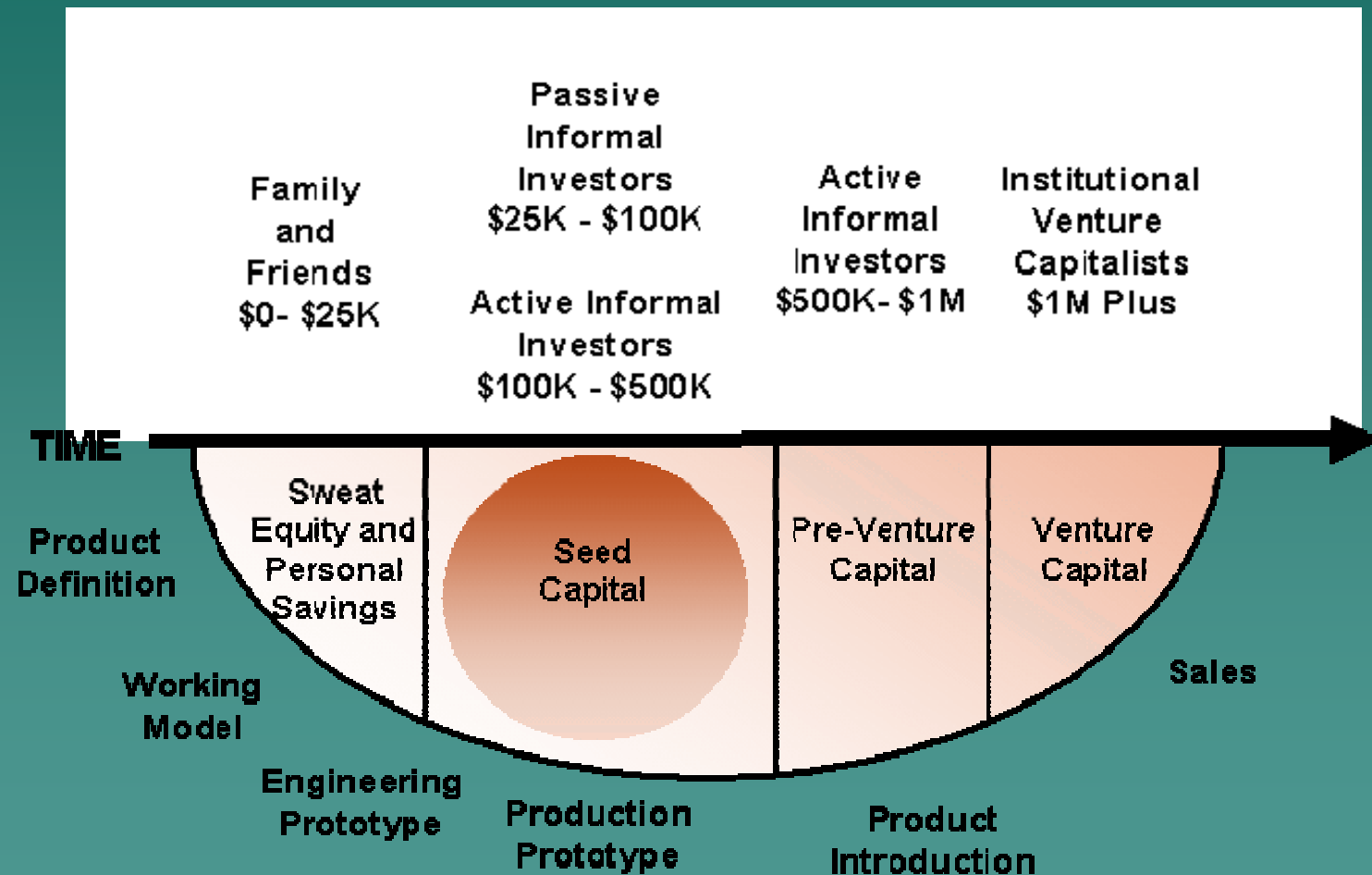
Months Since Registration	% of all registrations surviving to end of period
0-6	92.2
6-12	81.7
12-18	71.1
18-24	63.1
24-30	56.2
30-36	50.4
36-42	45.5
42-48	41.9





Financing the Early Business Stages

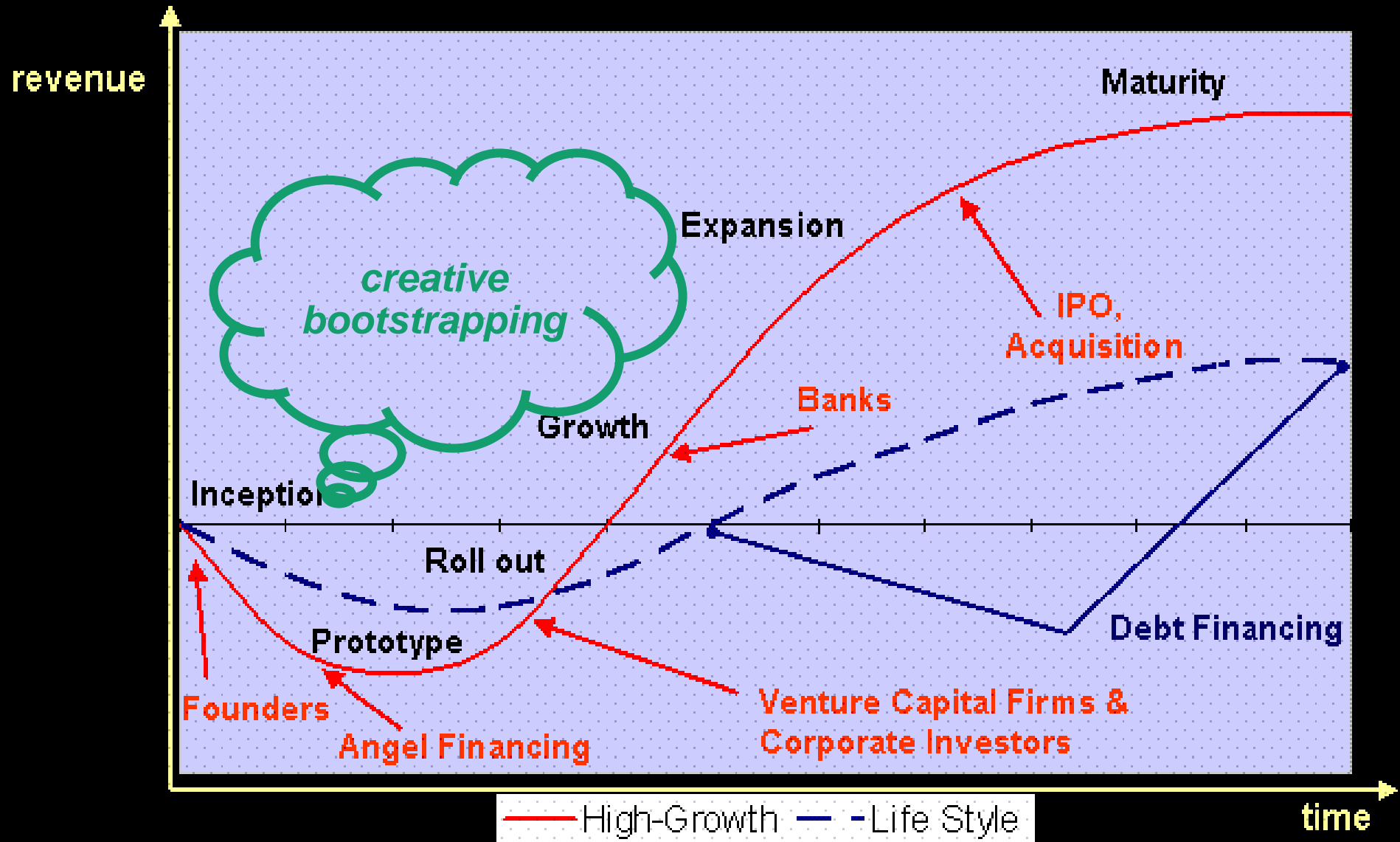
-Technology push-



*Adapted from:
Mohawk Research Corp 1999
All Rights Reserved*

Venture Financing

Source of Funds for High-Growth and Life-style Firms





THE ART OF BOOTSTRAPPING

- *Venturing with no start –up capital*
 - *get operational quickly - copycat*
 - *go for break-even, cash-generating niche products*
 - *offer high-value products via direct personal selling*
 - *forget about the crack team*
 - *monitor survival - focus on cash*
 - *do not buy – lease*
 - *do not pay cash – offer equity*
- *operational resources – the lab zone*
- *HR techniques*
- *.....black market ?????*



RAISING EXTERNAL FINANCE



**High risk
growth
business**

**low risk
Stable
business**

**1
No choice
EQUITY**

**2
No sweat
DEBT/EQUITY/PLC**

**3
No chance
SOCIAL CAPITAL**

**4
No need
INVEST ?**

**low cash
generation**

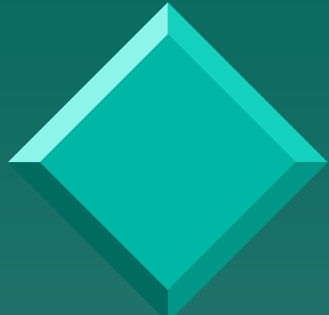
**strong cash
generation**

❖ Source: BDO Stoy Hayward- Growing Business



Equity Financing...

- ❖ *Represents the personal investment of the owner(s) in the business.*
- ❖ *Is called risk capital because investors assume the risk of losing their money if the business fails.*
- ❖ *Does not have to be repaid with interest like a loan does.*
- ❖ *Means that the entrepreneur must give up some ownership in the company to outside investors.*



Debt Financing...

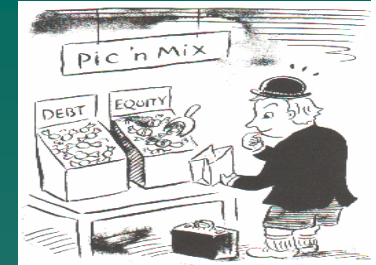


- ❖ *Must be repaid with interest.*
- ❖ *Is carried as a liability on the company's balance sheet.*
- ❖ *Can be just as difficult to secure as equity financing, even though sources of debt financing are more numerous.*
- ❖ *Can be expensive, especially for small companies, because of the risk/return tradeoff.*

<i>DEBT</i>	<i>VC</i>
<i>Small Amount</i>	<i>Large Amount</i>
<i>SR-MR</i>	<i>MR-LR</i>
<i>Useful IF Gearing is OK, Cashflows</i>	<i>Capital for Growth And Transfer</i>
<i>Collateral Interest Rate</i>	<i>Dividend and i/r tailored to Growth</i>
<i>Success/Failure Capital Repayment</i>	<i>Returns: Success (universal)</i>
<i>Lender first call for Assets</i>	<i>VC shares loss Survival Equity ?</i>
<i>Business Control</i>	<i>Parting Risk & Returns</i>



The Cost of DEBT versus EQUITY



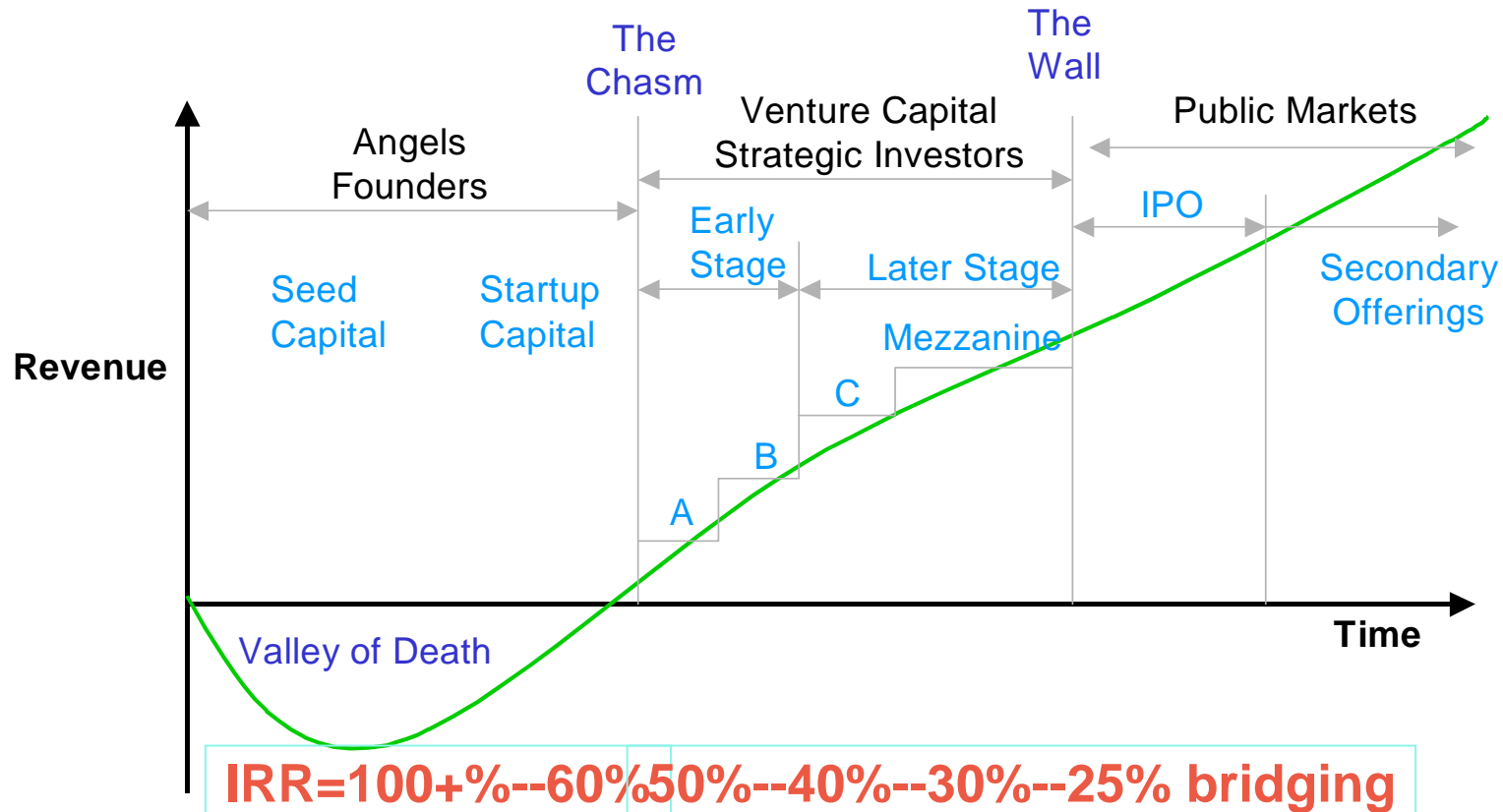
- **Value of Oh, No! Firm** **£400K**
- **Loan (£100K, 5y @10%)** **£150K**

- **Total Cost** **£50-150K**
- **No parting, share-dealing**
- **Autonomy**
- **100% of £ 400K-600K**

- **Value of GROW Firm** **£400K**
- **Debt (£100K, 5y @10%)** **£150K**
- **Sell 25% of shares** **£100K**
- **Valuation after 5yrs** **£1.2 M**
- **COST OF 25%** **£300K**
- **Plus Dividends say** **£100K**
- **Loan** **£150k**

- **TOTAL £ COST** **£450-550K**
- **Control Issues ?**
- **75% of £1.2M**

The Financing Cycle



Seed or Start-up: Market research and product development.

Early Stage: Funding full-scale operations ; selling products/services. Not yet profitable.

Later Stage: Funding expansion and new products. Ownership transfers.



The VC **www-** wish list

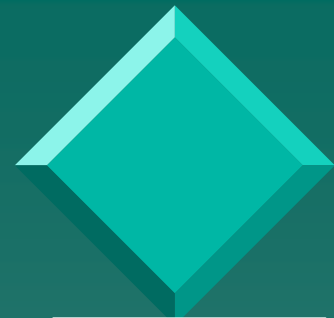
- ❑ Exceptional management teams with strong business track record and the entrepreneurial abilities
- ❑ A well defined business strategy with credible success
- ❑ Innovative products / technologies that are well positioned in their markets and feature key competitive advantages
- ❑ Accelerating revenues and a clear path to profitability
- ❑ Willingness to work in a close professional relationship
- ❑ Seeking investments £0.5m - £15m , returns
- ❑ **AxiomLab: 30%-40% equity (min. 20%) for £250k-£1m investment**



The AxiomLab.com investment criteria

Barriers to entry	World class IPR
Exit	Realistic exit within 2-4 years
Market opportunity	Fast growing with potential to reach >£200m pa
Customer pain	'Must have' not a 'nice to have'. Evidence of sales
Management	1 great person, willingness to recruit 'backable team'
Investment	30%-40% equity (min. 20%) for £250k-£1m investment
Geography	Primarily UK based

The AxiomLab due diligence process



Venture Capital Investing: Due Diligence – Study Areas

Management	Chief Executive Officer; Number Two & Three in Management; Management as a Team; Organizational Structure & Decision-making; Management Characteristics; Corporate Ownership; Documentation; Management Reports; Strengths & Weaknesses
Personnel	Corporate Organization; Employee Compensation; Profit-sharing Plan; Bonus Plan; Payroll Records; Training Program; Attitude and Morale; Record Maintenance; Reports; Motivation; Hiring Procedure; Consultants; Ratio Analysis
Marketing	Marketing People; Products; Customer Description; Customer Service; Competitive Analysis; Industry Analysis; Marketing Strategy; Product Distribution
Production	Production Management, Personnel and Organization; Production Process; Purchasing, Suppliers, Shipping, and Receiving; Efficiency Analysis; R&D
Financial Area	Management, Personnel, and Organization; Cash and Investment Management; Documentation; Analysis of Financial Operations; Financial Statement Analysis; Other Assets and Liabilities; Taxes; Analysis of Projections
Reference Area	General Information about the Company; Reference List: Bank, Other Institutional Lenders; Accounting Firm; Law Firm; Suppliers; Customers; Competitors; Agents, Consultants, Stakeholders, Trade Associations, Brokers

VC- EVALUATION

❑ **Strong barriers to entry:**

- real world class IP, which will give a 12+ month lead on others?
- Are there other relationship barriers which give this business a real lead

❑ **Market Opportunity:**

- demonstrable market and customer pain with compelling value proposition
- Either a small fast growing niche which has some analyst coverage
- More mature large market - £200+m believable market
- Cheap access to market

❑ **One Top manager/Techie** – who will attract other outstanding talent.

❑ **A good chance of not needing follow-on cash beyond next round - dilution**

- Likely to hit revenues quickly - other revenues stream
- Low overhead
- Syndicate type investment - other parties likely to put up more cash

❑ **Exitable/floatable:**

- Is there a market appeal – what is really happening on AIM/Ofex/Nasdaq
- Convincing trade exit – named acquirer with track record of acquisitions.

❑ **Business Model**

- Is there a clear executable strategy
- Is there a clear recruitment path
- Do the numbers make sense?



SEQUOIA CAPITAL®

Simple business—large growth markets with happy customers

clarity



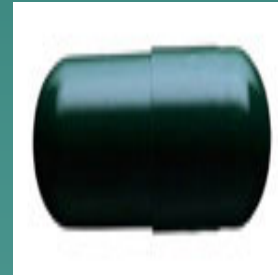
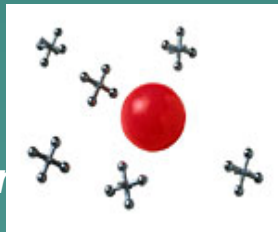
clients



market



differentiation



Pain solutions

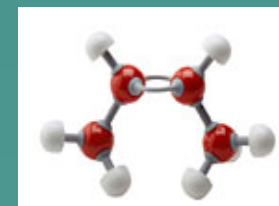
inferno



frugality



DNA-EQ



Business Valuation and VC ownership

1. Estimate the earnings after tax on sales in the 5th year
2. Determine a comparable earnings multiple
3. Determine the required rate of return
4. Determine the funding required
5. Calculate using the following formulae :

$$\text{Present Value} = \frac{\text{Future Valuation}}{(1+i/r)^n}$$



Future Valuation: estimated company value in 5 years (n)

INVESTORS SHARE: $\frac{\text{Initial Funding}}{\text{Present Value}}$



Case Study Activity: Business Valuation and VC share

- Zoico a fast growing producer of green based vitamins estimates
- Profits/ earnings of £1M on sales of £10M.
- The company needs a £0.8M equity injection to meet the goal in 5 years via building up its research and development and marketing network.
- A similar company in the industry is set at price times earnings multiple of 15
- GEO VC is interested but seeks 50% compound rate of return on the investment.
- What % of shares will the VC be after ?



Case Study: Business Valuation and VC share

- Present Value = $\frac{1,000,000 \times 15 \text{ times}}{(1+0.50)^5}$
= 1,976,285
- $\frac{800,000}{1,976,285} = 40.5\%$ will have to be given up

Main Differences Between Business Angels & Venture Capitalists

Main Differences	Business Angels	Venture Capitalists
Personal	Entrepreneurs	Money managers
Money invested	Own money	Fund provider's money
Firms funded	Small, early-stage	Medium to large, later-stage
Due diligence done	Minimal	Extensive
Location of investment	Of concern	Of lesser concern
Contract used	Simple	Comprehensive
Monitoring after investment	Active, hands-on	Strategic
Involvement in management	Important	Of lesser concern
Exiting the firm	Of lesser concern	Highly important
Rate of return	Of lesser concern	Highly important



GRANTS and Financial Schemes

- **Non-repayable cash (and in kind) support**
- **Terms & conditions variant by region, industry**
- **Rural and Regional Development Agencies**
- **SBS - Business Link, Chamber Business Enterprises**
- **European Union - Objective 1**
- **PYBT- Young People**
 - 18-25 (UB40)
 - grants for pre-start-market testing
 - advice and training & loans
- **Financial Support Schemes**
 - ✧ **Small Firms Loan Guarantee Scheme - bankability**
 - ✧ **Enterprise Investment Scheme - Equity boost**
 - ✧ **NESTA**



AWARDS

- **Publicity, prizes in cash to finance marketing**
- **DTI , SMART - to enhance SME innovations**
- **SHELL LiveWIRE Business Start Up (18-30)**
- **Young Enterprise**
- **Business Plan Competitions**
- **Entrepreneurial Small Business Awards**
- **Queens Export Awards**
- <http://www.sbs.gov.uk/Smart/>



AWARDS: the Smart route

<http://www.sbs.gov.uk/Smart/>

- ❑ **Technology Review** :SMEs (<250 staff) and individuals up to £2.5 K towards the costs of expert reviews against best practice.
- ❑ **Technology Studies** : SMEs (<250 staff) and individuals up to £5K ; to identify technological opportunities leading to innovations
- ❑ **Micro Projects** : micro-firms (<10 staff) and individuals up to £10K : to develop low-cost prototypes of innovative products & processes
- ❑ **Feasibility Studies**: small firms (<50 staff) and individuals up to £45 K : to undertake feasibility studies into innovative technologies.
- ❑ **Development Projects** : SMEs (<250 staff) up to £150K for undertaking development projects.
- ❑ **Exceptional Development Projects**: SMEs (<250 staff) up to £450K, for a small number of exceptional high cost development projects

OVERDRAFT

- ▶ **Ideal** for working capital if not cash cow
- ▶ **supplements trade credit from suppliers**
- ▶ **WC=CA-CL** and increases with growth
- ▶ **O/D is repayable on demand**
- ▶ **variant higher margins (base: 5%+) : 12-16%**
- ▶ **arrangement fee (1%-1.25% of facility)**
- ▶ **guarantees (100%+) or charge over stock**
- ▶ **Rule of thumb: Sales x weeks of Net CA**

52

EXAMPLE:Yearly Sales 1.2M ; Estimated average weeks of materials in stock 2; deduct weeks of credit from suppliers (-5); add weeks to produce product 1; add weeks of stocking finished product 2 ; add weeks for clients to pay 9 = Total weeks 9

Estimated Overdraft size : $1,200,000 \times (9/52) = \$ 207,692$

Alternatively = 1 month of sales X months of debtors = \$200,000 aprox



BANK LOANS

- ▶ **banks - main source of debt or loan capital**
- ▶ **cheaper than o/d; margins 2%-6%**
- ▶ **but cost bites once contract in place**
- ▶ **[re]-arrangement fees , 1%**
- ▶ **period of loan linked to asset life (1-10 years)**
- ▶ **Land & Buildings: mortgaged , 75 % financed**
- ▶ **Security - charge on assets**

- buildings 60 - 70%

- machinery 10 - 30%

- stock 20 - 30%

- debtors 30 - 50%



Business Plan: Essential Parts & Review Parameters Used by Investors

Essential Parts:

1. Management team
2. The business concept
3. Market analysis
4. Operational plan
5. Financial plan
6. Marketing plan



Review Parameters:

1. Reality check
2. Market opportunity
3. Management Team
4. Technology issues
5. Resources
6. Implementation
7. Exit

CAMPARI-LOAN ASSESEMENT

- **CHARACTER**: track record in business, credit history; impression; commitment (equity) ; education, network.
- **ABILITY**: managerial abilities to manage resources (borrow and pay) , techno-know how, financial and business acumen.
- **MARGIN**: interest rate above base; fixed , negotiated; fees.
- **PURPOSE**: venture viability; compatibility of business plan with bank and public policy; usage of loan i.e. property, technology.
- **AMOUNT**: customer's stake; is the amount correct; timing of equity injection and considerations of extra loan financing
- **REPAYMENT**: cash generation enough to service debt; reserves for contingencies; cash-flows realistic; period OK?
- **INSURANCE**: security necessary, correct; insurance for other risks and key personnel.

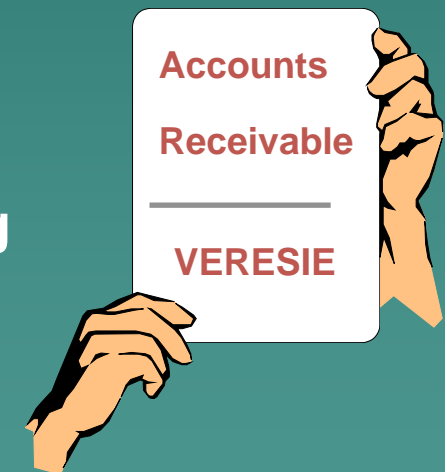


Asset based Funding - LEASING, HP

- a contract to use someone's else property
- typically run for 36 to 60 months - matching life of asset
- cover 100 percent of the cost of the asset
- a fixed r/i included in the payments, **COSTLY** as **O/D**
- spread out payments - tax deductible
- cash is free for other survival and growth purposes
- allows lines of credit - o/d for other WC purposes
- a hedge against equipment obsolescence - HTSFs !!
- **OPERATING** lease (off B/S)
- **FINANCE** lease (on the B/S)
- **HP** - similar to Finance Lease ; the client opts to buy the asset

THE FACTORING OPTION

- Sales-linked finance
- 80% of invoice value cashing (at a cost !)
- sales ledger, credit management
- **RECOURSE** - cost of bad debt re-merges
- **NON-RECOURSE**- bad debt protection
- **INVOICE DISCOUNTING**
 - no sales ledger management
 - £ 1m turnover, spread of debtors
- **BENEFITS:**
 - working capital management; credit rating
 - cash flow to back growth
 - export factoring
- **COST:**
 - service fee (1-2%); interest charge, base+2-3%
 - sour customer relations (fat accounts)
 - o/d facility reduced ; loss of control.





Support for Start Up Business Planning

- ❑ Use computer-aided business planning, Palo Alto
- ❑ Use outside sources of assistance:
 - Bankers
 - Solicitors
 - Marketing specialists
 - Engineering and production experts
 - Accounting firms
 - Business incubators
 - Small Business Development Center
 - Small Business Service – DTI
 - Chamber – Start Up Service
 - Academia