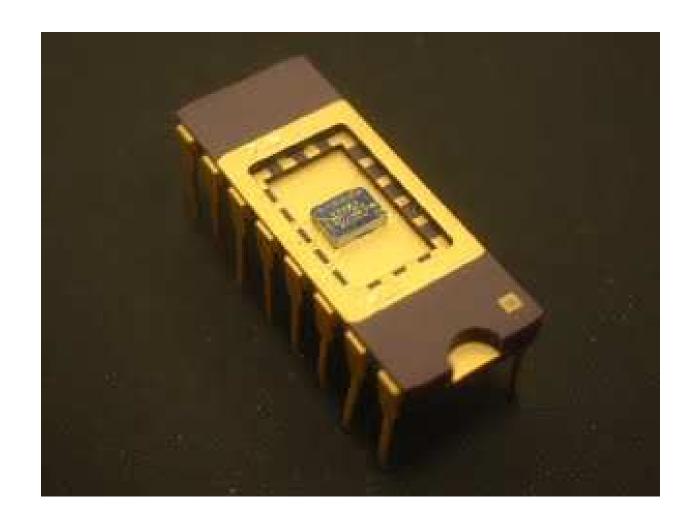


#### Research Discovery to Commercial Success

October 29, 2009

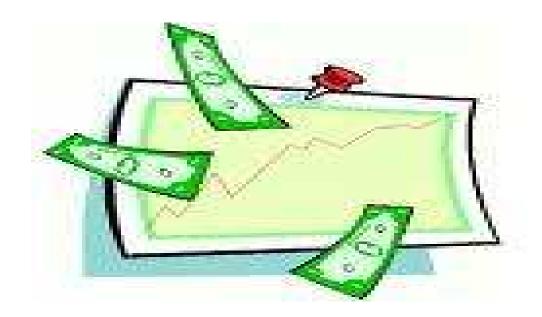
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## The Pathway from Discovery to Commercial Success

#### Starts with an Economic Model



#### **Economic Models**

- Determine the profitability of the Opportunity
- Estimate the amount of needed financing
- Convince Management (Investors) of the financial soundness of the Opportunity



#### The Three Key Financial Statements

- 1) Income Statement
- 2) Cash Flow Statement
- 3) Balance Sheet

#### The 4<sup>th</sup> Conserved Quantity

- 1. Mass
- 2. Momentum
- 3. Energy
- 4. Money

#### The Accounting Equation

ASSETS = LIABILITIES + OWNERS' EQUITY

#### **Income Statement**

- Projects Revenue & Expense
- Illustrates Profitability
- Segregates Direct Expenses from Indirect Expenses
- Basis for Income tax calculations
- Income is NOT equal to cash
- Provides Income for Market based valuation

Az Mfg 094	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Income Statements (\$s)					
SALES					
Gross Sales	361,350	5,920,249	14,611,595	52,681,430	68,428,663
NET SALES	361,350	5,920,249	14,611,595	52,681,430	68,428,663
COST OF SALES					
Materials	55,560	829,740	2,004,727	7,320,848	9,476,947
Labor	18,341	455,444	1,259,526	4,082,266	5,446,146
Other	50,440	1,160,813	3,193,078	10,331,185	13,784,965
TOTAL COST OF SALES	124,342	2,445,997	6,457,331	21,734,299	28,708,058
GROSS MARGIN	237,008	3,474,252	8,154,264	30,947,130	39,720,605
OPERATING EXPENSES					
Salaries and wages	559,310	1,053,329	1,983,698	3,735,828	7,035,554
Payroll taxes	42,787	80,580	151,753	285,791	538,220
Employee benefits	83,897	157,999	297,555	560,374	1,055,333
Depreciation	211,229	328,464	361,798	313,048	299,964
Additional Operating Expenses	892,561	1,322,888	1,960,687	2,905,987	4,307,040
TOTAL OPERATING EXPENSES	1,789,784	2,943,261	4,755,491	7,801,028	13,236,111
OPERATING PROFIT (LOSS)					
BEFORE INTEREST AND TAXES	(1,552,776)	530,991	3,398,773	23,146,102	26,484,495
INTEREST EXPENSE	(43,903)	(63,959)	(81,788)	(78,211)	(56,561)
PROFIT (LOSS) BEFORE TAXES	(1,596,679)	467,032	3,316,986	23,067,891	26,427,934
INCOME TAXES	-	-	(656,202)	(6,920,367)	(7,928,380)
NET PROFIT (LOSS)	(1,596,679)	467,032	2,660,784	16,147,524	18,499,554

#### Cash Flow Statement

- Basis for estimating required investment
- Illustrates all transactions involving cash.
- Projects the cash balance at end of each period
- Reveals the Cash Flow for valuing company by discounted Cash Flow Method.
- Profitable companies can go bankrupt because <u>Cash</u> not income pays bills!

Az Mfg 094	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Cash Flows (\$s)					
CASH FLOWS FROM OPERATIONS					
Net income	(1,596,679)	467,032	2,660,784	16,147,524	18,499,554
Adjustments to reconcile net income					
Depreciation	211,229	328,464	361,798	313,048	299,964
Accounts receivable	(137,115)	(514,095)			
Inventory	(30,660)	(169,239)	199,898	(2,639,272)	
Accounts payable	21,367	47,196	42,078	255,968	120,004
TOTAL CASH FLOWS FROM					
OPERATIONS	(1,531,857)	159,359	2,683,289	10,965,974	16,503,589
CASH FLOWS FROM INVESTING					
ACTIVITIES					
Purchase of equipment	(1,935,287)	-	(1,500,000)	-	-
TOTAL CASH FLOWS FROM					
INVESTING ACTIVITIES	(1,935,287)	-	(1,500,000)	-	-
CASH FLOWS FROM FINANCING					
ACTIVITIES					
Borrowing of long-term debt	1,499,787	-	1,350,000	-	-
Repayment of long-term debt	(155,422)	(277,740)	(382,677)	(443,418)	(460,005)
CASH FLOW BEFORE					
EQUITY FINANCING	(2,122,778)	(118,381)	2,150,612	10,522,556	16,043,584
Sales of Stock	3,700,000	-	-	-	-
TOTAL CASH FLOWS FROM					
FINANCING ACTIVITIES	5,044,365	(277,740)	967,323	(443,418)	(460,005)
NET CASH FLOWS	1,577,222	(118,381)	2,150,612	10,522,556	16,043,584
CASH, BEGINNING OF PERIOD	-	1,577,222	1,458,841	3,609,452	14,132,008
	4 577 000				
CASH, END OF PERIOD	1,577,222	1,458,841	3,609,452	14,132,008	30,175,592

#### **Balance Sheet**

- Accumulates all you own and all you owe
- Separates Current Assets and Liabilities from Long term Assets and Liabilities
- Highlights the owner's equity
- Show the company's liquidity and ability to service debt
- The Net Worth Statement is equivalent to the Balance Sheet

Az Mfg 094					
	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Balance Sheets (\$s)					
ASSETS					
Current Assets					
Cash	1,577,222	1,458,841	3,609,452	14,132,008	30,175,592
Accounts Receivable	137,115	651,210	1,232,480	4,343,773	5,849,451
Inventory	30,660	199,898	-	2,639,272	3,549,528
Total Current Assets	1,744,996	2,309,949	4,841,932	21,115,053	39,574,570
Property and Equipment	1,935,287	1,935,287	3,435,287	3,435,287	3,435,287
(less accumulated depreciation)	(211,229)				
Net Property and Equipment	1,724,058	1,395,593	2,533,795	2,220,747	1,920,783
	2 100 221				
TOTAL ASSETS	3,469,054	3,705,543	7,375,727	23,335,801	41,495,353
LIABILITIES AND					
SHAREHOLDERS' EQUITY					
Liabilities					
Current Liabilities					
Accounts Payable	21,367	68,564	110,642	366,610	486,614
Current Portion of L-T Debt	277,740	292,677	443,418	460,005	275,525
Total Current Liabilities	299,107	361,241	554,060	826,615	762,139
Long-Term Debt	1,066,625	773,948	1,590,530	1,130,525	855,000
Total Liabilities	1,365,733	1,135,189	2,144,590	1,957,140	1,617,139
Shareholders' Equity					
Paid-In Capital	3,700,000	3,700,000	3,700,000	3,700,000	3,700,000
Retained Earnings	(1,596,679)			17,678,661	36,178,215
Total Shareholders' Equity	2,103,321	2,570,353	5,231,137	21,378,661	39,878,215
TOTAL LIABILITIES AND					
SHAREHOLDERS' EQUITY	3,469,054	3,705,543	7,375,727	23,335,801	41,495,353

			Valuation			
Year Ending	Aug-09	Aug-10	Aug-11	Aug-12	Aug-13	Aug-14
Year	0	1	2	3	4	5
Cash Flow before Equity Financing	\$0	(2,122,778)	(118,381)	2,150,612	10,522,556	16,043,584
Discounted Cash Flow	\$0	(1,326,736)	(46,243)	525,052	1,605,615	1,530,035
Net Present Value (NPV)	\$2,287,723					
Internal Rate of Return	118%					
Modified Internal Rate of return	87%					

		Valuation Summa			
Valuation Methodology	Discounted Cash Flow	P/E Ratio	P/EBITDA Ratio	P/S Ratio	Replacement
Pre-Money Value	\$7,281,174	\$6,264,935	\$7,120,750	\$5,514,914	\$6,500,000
External Investment	\$3,700,000	\$3,700,000	\$3,700,000	\$3,700,000	\$3,700,000
Post-Money Value	\$10,981,174	\$9,964,935	\$10,820,750	\$9,214,914	\$10,200,000
External Investors' Ownership %	34%	37%	34%	40%	36%

# Intellectual Property Issues Confronting Start-up and Early State Enterprises

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### BUSINESS FORMATION ISSUES

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#### **ENTITY CHOICES**

- A. CORPORATION
  - 1. C-Corporation
  - 2. S-Corporation
- B. Limited Liability Company
  - Manager-managed
  - 2. Member-managed
- C. Other entities, such as Sole Proprietorship, Partnership, Limited Partnership









