

Adamac inc. essay



ADAMAC Inc. An Analysis of Production and Cost Theory Group III Osvald

Ronald David Tjahjo Agenda • • • • Company's Overview Current Issues

Case Analysis Recommendation 2 Overview of Adamac Inc. •

Provide services of jet cutting (laser, water jet, wire) built by Ryan Olliver and Ben Watts, previously worked for Perts • Adamac

was built with an objective to provide

more efficient and higher customer service • Adamac

had started with used water jet, used

laser cut machine, and wire cutter machine 3 Partnership and Organization

Ryan Olliver and Ben Watts were the key

players on the company with Mike Degena act

as landlord and became the third person on the partnership •

Currently Adamac employed 8 people – Olliver and Watts, Jennifer (Olliver's wife), with one programmer and four machine operators 4 Success Factors •

Adamac was well known of their exceptional customer service and high?

quality work • The company compete on service and charged “

premium price with premium product” •

Major clients is manufacturing industry but

also can be agriculture, finance, and sales 5 Current Issues

The company had 70 clients and reached its maximum capacity –

They were experienced with machine malfunctions of 8 days –

No profit on laser cutter sales and had to be

outsourced from to other company that very expensive 6

Expansion Alternatives Alternatives Buy neither (no expansion)

Buy a laser jet cutter only Buy a laser jet cutter and a water jet cutter

Option 3 plus buy out Degena (shares and land) Conditions

<https://assignbuster.com/adamac-inc-essay/>

No loans and workers are required Loans and additional workers required
 Loans and additional workers required Loans and additional workers
 required Investment and Loan Information •

Investing and loan information provided to Adamac by the bank Purchase jet
 cutter Laser cutter (used) Water cutter (used) Loan Loan period Loan period
 DP Monthly principal payment Monthly interest Additional land square
 required 10, 000 sq feet land \$ Moving costs Purchase price \$ 500, 000 200,
 000 % contr of revenue 55% 40% Amortization Salvage value Depreciable
 Depreciation/y (yrs) r 10 \$ 35, 000 \$ 465, 000 \$ 46, 500 10 \$ 10, 000 \$ 190,
 000 \$ 19, 000 % of usage 1st yr 55% 40% % of usage 2nd yr 55% 40% years
 192 months 10% of total loan 2, 604 8% Additional workers (required either
 one or two machines purchased) 1 operator \$ 48, 000 \$24 per hour for 40
 hrs per week (50 weeks/yr) 1 programmer 50, 000 120, 000 \$1/sq foot per
 mo 50, 000 Operating Expenses Ops Exps \$ 42, 079 Ops Exps 504, 948. 00
 (monthly) (yearly) Revenue As May 2008 \$ 1, 613, 750 8 Assumptions
 Future gross revenue and costs were forecasted using

Smoothing Average (3 years) method •

Maximum Payout Period would be 10 years (machines/asset lifetime) –
 Using straight line depreciation method with different salvage values
 between used laser and water cutter •

Loans would be required from the bank for new machine
 purchases and buyout Degenas share •

Incremental (additional) revenue and costs were calculated
 from percentage the new machines could brought to the business (i. .
 laser jet will be 40 – 55%) • Share of Mike Degenas is assumed to be 33.
 3% of total company assets –

Buyout will require monthly payment of 2 years (calculated at 33.3% portion to be paid to Degena from gross revenue) 9 Decision Making Analysis

- Using approach of NPV, IRR, and Payout

- Period to compare between alternatives •

Decide the best alternative can be based on

faster Payout Period and/or NPV amount 10 Alternative 1: No Expansion

Descriptions Revenue Cost of Goods Sold Gross Profit Expenses Management salaries Wages and benefits Amortization Repairs and maintenance Rent

Loan interest Factory supplies Auto expenses Legal fees Utilities Telephone

Insurance Miscellaneous Travel and entertainment Delivery charges Office

supplies Computer software expense Garbage service Advertising and

promotion Total Expenses Operating Income before tax Income tax Net

earnings after tax 2009 1, 215, 153 248, 357 966, 796 2010 1, 308, 558 257,

664 1, 050, 894 2011 1, 379, 154 262, 899 1, 116, 254 2012 1, 300, 955

256, 307 1, 044, 648 2013 1, 329, 556 258, 957 1, 070, 599 2014 1, 336,

555 259, 388 1, 077, 167 2015 1, 322, 355 258, 217 1, 064, 138 2016 1,

329, 488 258, 854 1, 070, 634 2017 1, 329, 466 258, 820 1, 070, 646 2018

1, 327, 103 258, 630 1, 068, 473 762, 566 204, 230 44, 794 159, 436 838,

979 211, 915 44, 794 167, 121 898, 953 217, 301 44, 794 172, 507 33, 499

211, 149 44, 794 166, 355 857, 144 213, 455 44, 794 168, 661 863, 199

213, 968 44, 794 169, 174 851, 281 212, 857 44, 794 168, 063 857, 208

213, 427 44, 794 168, 633 857, 229 213, 417 44, 794 168, 623 855, 239

213, 234 44, 794 168, 440 11 Alternative 2: Buy One Jet Cutter YEAR 0 2009

1 2010 2 2011 3 2012 4 2013 5 2014 6 2015 7 2016 8 2017 9 2018 10 Initial

Investment Gross Revenue 2 COGS 3 Add'l revenue Less: COGS Loan down

payment 4 Loan repayment Depreciation Additional workers Land square
 required Moving cost 5 Operating Expenses Total Expenses Net Income
 Before Tax Income Tax Net Income After Tax After Tax Cash Flow ATCF
 Cummulative ATCF NPV through Year N 1 \$ 500, 000) 1, 215, 153 1, 308,
 558 1, 379, 154 248, 357 257, 664 262, 899 \$ 668, 334 \$ 719, 707 \$ 758,
 535 \$ 136, 596 50, 000 134, 271 46, 500 98, 000 120, 000 50, 000 635, 367.
 52 32, 966. 63 6, 191. 88 26, 774. 75 73, 275 (426, 725) (432, 153) 141, 715
 146, 478 46, 500 98, 000 120, 000 552, 693. 02 167, 013. 88 31, 369. 01
 135, 644. 87 182, 145 (244, 580) (275, 993) 144, 595 146, 478 46, 500 98,
 000 120, 000 555, 572. 33 202, 962. 18 38, 120. 92 164, 841. 26 211, 341
 (33, 239) (108, 224) 1, 300, 955 1, 329, 556 256, 307 258, 957 715, 525 \$
 731, 256 \$ 140, 969 146, 478 46, 500 98, 000 120, 000 551, 946. 45 163,
 578. 74 30, 723. 81 132, 854. 93 179, 355 146, 116 23, 608 142, 426 12,
 206 46, 500 98, 000 120, 000 419, 132. 27 312, 123. 27 58, 623. 86 253,
 499. 1 299, 999 446, 115 227, 782 1, 336, 555 259, 388 735, 105 \$ 142, 663
 46, 500 98, 000 120, 000 407, 163. 27 327, 941. 81 61, 594. 94 266, 346. 87
 312, 847 758, 962 424, 929 1, 322, 355 258, 217 727, 295 \$ 142, 019 46,
 500 98, 000 120, 000 406, 519. 46 320, 775. 81 60, 249. 00 260, 526. 81
 307, 027 1, 065, 989 604, 076 1, 329, 488 258, 854 731, 219 \$ 142, 370 46,
 500 98, 000 120, 000 406, 869. 67 324, 348. 95 60, 920. 12 263, 428. 83
 309, 929 1, 375, 918 771, 521 1, 329, 466 258, 820 731, 206 \$ 142, 351 46,
 500 98, 000 120, 000 406, 850. 80 324, 355. 53 60, 921. 36 263, 434. 17
 309, 934 1, 685, 852 926, 565 1, 327, 103 258, 630 729, 907 142, 247 46,
 500 98, 000 120, 000 406, 746. 64 323, 160. 10 60, 696. 83 262, 463. 27
 308, 963 1, 994, 815 1, 069, 675 18. 78% 500, 000) (500, 000) (500, 000) 12
 Alternative 3: Buy Two Jet Cutters YEAR 0 2009 1 2010 2 2011 3 2012 4

2013 5 2014 6 2015 7 2016 8 2017 9 2018 10 Initial Investment 1 Gross Revenue 2 COGS Add'l revenue Less: COGS Loan down payment 4 Loan repayment Depreciation Additional workers Land square required Moving cost 5 Operating Expenses Total Expenses Net Income Before Tax Income Tax Net Income After Tax After Tax Cash Flow ATCF Cumulative ATCF NPV through Year N 3 \$ (700, 000) 1, 215, 153 248, 357 1, 308, 558 257, 664 1, 379, 154 262, 899 1, 300, 955 256, 307 1, 329, 556 258, 957 1, 336, 555 259, 388 1, 322, 355 258, 217 1, 329, 488 258, 854 1, 329, 466 258, 820 1, 327, 103 258, 630 1, 154, 395 \$ 1, 243, 130 \$ 1, 310, 196 \$ 1, 235, 907 \$ 1, 263, 078 \$ 1, 269, 727 \$ 1, 256, 237 \$ 1, 263, 014 \$ 1, 262, 993 \$ 1, 260, 748 235, 939 70, 000 187, 980 65, 500 98, 000 120, 000 50, 000 827, 418. 70 326, 976. 65 61, 413. 66 265, 562. 99 331, 063 (368, 937) (393, 460) 244, 781 205, 069 65, 500 98, 000 120, 000 733, 349. 72 509, 780. 38 95, 748. 37 414, 032. 02 479, 532 110, 595 17, 661 249, 754 205, 069 65, 500 98, 000 120, 000 738, 323. 07 571, 872. 91 107, 410. 76 464, 462. 15 529, 962 640, 557 438, 362 243, 492 205, 069 65, 500 98, 000 120, 000 732, 060. 18 503, 846. 96 94, 633. 94 409, 213. 03 474, 713 1, 115, 270 787, 291 246, 009 17, 089 65, 500 98, 000 120, 000 546, 597. 89 716, 479. 86 134, 571. 24 581, 908. 62 647, 409 1, 762, 679 1, 227, 906 246, 418 65, 500 98, 000 120, 000 529, 918. 37 739, 808. 59 138, 952. 90 600, 855. 8 666, 356 2, 429, 034 1, 647, 823 245, 306 65, 500 98, 000 120, 000 528, 806. 34 727, 430. 95 136, 628. 10 590, 802. 85 656, 303 3, 085, 337 2, 030, 769 245, 911 65, 500 98, 000 120, 000 529, 411. 25 733, 602. 74 137, 787. 30 595, 815. 44 661, 315 3, 746, 653 2, 388, 058 245, 879 65, 500 98, 000 120, 000 529, 378. 65 733, 614. 09 137, 789. 44 595, 824. 65 661, 325 4, 407, 977 2, 718, 885 245, 699 65, 500 98, 000 120, 000 529, 198. 75 731, 549. 26 137, 401.

61 594, 147. 65 659, 648 5, 067, 625 3, 024, 429 18. 78% (700, 000) (700, 000) (700, 000) 13 Alternative 4: Buy Two Jet Cutters and Acquiring Degena's Share YEAR Initial Investment buying 2 machines Buy out Degena's share 1 Gross Revenue 2 COGS 3 0 2009 1 2010 2 011 3 2012 4 2013 5 2014 6 2015 7 2016 8 2017 9 2018 10 \$ \$ (700, 000) (324, 408) 1, 215, 153 248, 357 1, 308, 558 257, 664 1, 379, 154 262, 899 1, 300, 955 256, 307 1, 329, 556 258, 957 1, 336, 555 259, 388 1, 322, 355 258, 217 1, 329, 488 258, 854 1, 329, 466 258, 820 1, 327, 103 258, 630 Add'l revenue Less: COGS Loan down payment 4 4 years Loan repayment 5 10 years Loan Degena's share 2 years Degena's rev share 33. 3% of rev Depreciation Additional workers Land square required Moving cost 6 Operating Expenses Total Expenses Net Income Before Tax Income Tax 18. 78% Net Income After Tax After Tax Cash Flow ATCF Cummulative ATCF NPV through Year N (700, 000) (700, 000) (700, 000) 1, 154, 395 \$ 1, 243, 130 \$ 1, 310, 196 \$ 1, 235, 907 \$ 1, 263, 078 \$ 1, 269, 727 \$ 1, 256, 237 \$ 1, 263, 014 \$ 1, 262, 993 \$ 1, 260, 748 235, 939 244, 781 70, 000 187, 980 205, 069 136, 718 149, 147 404, 646 435, 750 65, 500 65, 500 98, 000 98, 000 120, 000 120, 000 50, 000 1, 368, 782. 55 1, 318, 246. 33 (214, 387. 20) (75, 116. 23) (40, 266. 80) (14, 108. 54) (174, 120. 40) (61, 007. 69) (108, 620) (808, 620) (800, 574) 4, 492 (804, 128) (796, 723) 249, 754 205, 069 149, 147 65, 500 98, 000 120, 000 887, 469. 87 422, 726. 11 79, 397. 59 343, 328. 52 408, 829 (395, 300) (472, 182) 243, 492 205, 069 149, 147 65, 500 98, 000 120, 000 881, 206. 98 354, 700. 16 66, 620. 77 288, 079. 39 353, 579 (41, 720) (212, 290) 246, 009 17, 089 149, 147 65, 500 98, 000 120, 000 695, 744. 69 567, 333. 06 106, 558. 07 460, 774. 9 526, 275 484, 555 145, 884 246, 418 149, 147 65, 500 98, 000 120, 000 679, 065. 17 590, 661. 79 110, 939. 74 479, 722. 05

545, 222 1, 029, 777 489, 466 245, 306 149, 147 65, 500 98, 000 120, 000
 677, 953. 14 578, 284. 15 108, 614. 93 469, 669. 21 535, 169 1, 564, 946
 801, 732 245, 911 149, 147 65, 500 98, 000 120, 000 678, 558. 05 584, 455.
 94 109, 774. 14 474, 681. 80 540, 182 2, 105, 128 1, 093, 575 245, 879 149,
 147 65, 500 98, 000 120, 000 678, 525. 45 584, 467. 29 109, 776. 27 474,
 691. 02 540, 191 2, 645, 319 1, 363, 805 245, 699 161, 575 65, 500 98, 000
 120, 000 690, 773. 73 569, 974. 28 107, 054. 15 462, 920. 13 528, 420 3,
 173, 739 1, 608, 566 14 Alternatives Comparison •

After reviewing the result of all available

Alternatives, the recommendation will be as follows: –

Alternative 3 will be the best NPV and IRR also could give faster return –

Alternative 4 (purchase new machines and buyout Degená's

shares) still showed positive NPV but in longer return period Alternatives

NPV IRR Payout Period (months) Cum. CFAT Buy neither (no expansion) Buy

a laser jet cutter only Buy a laser jet cutter and a water jet cutter Option 3

plus buy out Degená (shares and land) \$ \$ 945, 762 6, 987, 738 238, 473

36% 64% 31% – \$ 1, 677, 013 38 6, 769, 222 21 \$ 21, 996, 791 49 \$ 8, 953,

695 15 Timing and Company's growth • Is this the right time for Adamac

to invest in equipment and expand?

Although the current market isn't performed well, the

investment to put by purchasing additional jet cutters are

still profitable within certain range of time • Based on business size?

up, is Adamac poised for growth? –

Given with the full maximum capacity of their services, it is

trusted that they will grow in the market especially by

expanding and renew their machines and facilities 16 Recommendation •

<https://assignbuster.com/adamac-inc-essay/>

Within the short term, it is recommended for Olliver and Watts only to purchase two additional jet cutters without buy out Degen’s share • There could be another option in the mid or long term (3 – 5 years period) to consider buying out the other partner’s share

17 Exhibits
18 Income Statement

Statement of Earnings For year ending May 31

Descriptions	Revenue	Cost of Goods Sold	Gross Profit	Expenses	Management salaries	Wages and benefits	Amortization	Repairs and maintenance	Rent	Loan interest	Factory supplies	Auto expenses	Legal fees	Utilities	Telephone	Insurance	Miscellaneous	Travel and entertainment	Delivery charges	Office supplies	Computer software expense	Garbage service	Advertising and promotion																																																																																			
2005	413,095	87,210	325,885	2006	934,938	220,435	714,503	2007	1,096,771	241,959	854,812	2008	1,613,750	282,677	1,331,073	\$ \$ \$ \$	128,360	10,308	65,165	4,441	14,805	19,398	15,852	2,591	16,686	3,801	4,793	3,229	3,715	1,985	4,805	1,663	301,597	24,288	4,573	19,715	18.83%	33,546	147,227	85,238	4,781	36,978	25,381	31,515	6,380	30,801	3,807	5,881	4,722	5,093	5,750	6,021	206	533,327	181,176	33,799	147,377	18.66%	189,649	208,058	61,546	20,767	41,563	15,787	33,248	21,557	5,136	30,149	4,990	9,788	2,522	6,126	2,019	5,700	449	659,054	195,758	36,500	159,258	18.65%	244,219	308,434	256,099	25,305	37,714	27,847	92,886	22,884	4,242	38,711	6,848	9,283	2,962	3,405	2,385	3,817	8,275	1,095	316	235,757	44,794	190,963	19.00%	Operating Expense before tax	Income tax	Net earnings after tax

19 Balance Sheet Balance Sheet For year ending May 31

ASSETS Current Assets Cash Account Receivables Inventory Prepaid rent Fixed Assets Computer equipment Less:

Accumulated amortization Leasehold improvements Less: Accumulated
 amortization Machinery and equipment Less: Accumulated amortization
 Office equipment Less: Accumulated amortization Vehicles Less:
 Accumulated amortization Total Assets LIABILITIES AND EQUITY Liabilities
 Accounts payable Employee deduction payable Bank loan Shareholders'
 advance Total Liabilities Equity Common shares Retained earnings Total
 Equity Total Liabilities and Equity \$ \$ 100, 135 330, 133 32, 766 3, 656 10,
 280 1, 339 18, 606 1, 767 743, 516 326, 877 2, 314 399 98, 600 36, 400 \$ 8,
 941 16, 839 416, 639 1, 915 62, 200 973, 224 \$ 38, 814 15, 307 327, 201
 (139, 991) 241, 331 214, 310 517, 583 731, 893 973, 224 20

Revenue and Cost Forecasts

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
2017	2018	2017	2018	Historical Revenue \$									
413,	095	934,	938	1,	096,	771	1,	613,	750	814,	935	1,	
215,	153	1,	308,	558	1,	379,	154	1,	300,	955	1,	329,	
556	1,	336,	555	1,	322,	355	1,	329,	488	1,	329,	466	
1,	327,	103	1,	328,	686	1,	328,	418	Moving Average (3 yr) \$				
Historical COGS				87,	210	220,	435	241,	959	282,	677	183,	
201	248,	357	257,	664	262,	899	256,	307	258,	957	259,	388	
258,	217	258,	854	258,	820	258,	630	258,	768	258,	739	Moving Average	
(3 yr) \$				Historical Expenses									
301,	597	533,	327	659,	054	1,	095,	316	497,	993	762,	566	
838,	979	898,	953	833,	499	857,	144	863,	199	851,	281	857,	
208	857,	229	855,	239	856,	559	856,	342	Moving Average (3 yr)				
				21									

End of Presentation