

# [Adamac inc. essay](https://assignbuster.com/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 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 Degena’s 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 Degena 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 Cummulative 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 lternatives, 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  Degena’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 Degena (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 • Within the short term, it is recommended for  Olliver and Watts only to purchase two  additional jet cutters without buy out  Degena’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