Fixed Operations 2 -

Financial Calculations and Formulas

AUDI TACOMA

Dealership

N30

Student

N415

Class #

· Service

Service Department Sales And Gross (Labor Only)

Category	Sales	Gross	Gross as % of Sales	%Sales Contribution
Customer Pay	$ 113,340	$ 87,311	77.03%	34.66%
Customer			0%	0.00%
Customer Other			0%	0.00%
Warranty	$ 168,213	$ 132,806	78.95%	51.43%
Warranty Other			0%	0.00%
Internal	$ 45,492	$ 37,341	82.08%	13.91%
NVI / Road Ready/ PDI			0%	0.00%
Adj. Cost Of Labor			0%	0.00%
Total	$ 327,045	$ 257,458	78.72%	100.00%

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Customer Pay Gross Profit %	77.03%
Total Service Dept. G.P. %	78.72%

Parts To Labor Ratios

Category	Parts Sales	Labor Sales	P/L Ratio
Customer Pay	$ 58,632	$ 113,340	0.52
Customer	-	$ -	0.00
Customer Other	-	$ -	0.00
Warranty	$ 106,545	$ 168,213	0.63
Warranty Other	-	$ -	0.00
Internal	$ 66,296	$ 45,492	1.46
Total	$ 231,473	$ 327,045	0.71

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Customer Pay Gross Profit %	77.03%
Total Service Dept. G.P. %	78.72%
Parts / Labor Ratio (Cust. Pay Only)	0.52

Service Department Profit Centering

Expense Category	Dollar Amount	% of Gross	Profile
Department Gross	$ 257,458		
Variable Expense		0.00%	
Selling Expense	$ 163,042	63.33%	
Personnel Expense	$ 295,150	114.64%	
Semi-Fixed Expense	$ 97,003	37.68%	
Fixed Expense	$ 81,007	31.46%	
Unallocated Expense		0.00%	
Dealer's Salary		0.00%	
Total Expenses	$ 636,202	247.11%	
Net Profit	$ (378,744)	-147.11%	

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Customer Pay Gross Profit %	77.03%
Total Service Dept. G.P. %	78.72%
Parts / Labor Ratio (Cust. Pay Only)	0.52
Total Service Dept. Expenses	$ 636,202

Fixed Absorption

		% Adj Ovhd Exp
Parts Department Total Gross	$ 129,467	20.35%
Service Department Total Gross	$ 259,144	40.73%
Body Shop Department Total Gross		0.00%
Total Fixed Gross Profit	$ 388,611	
Total Dealership Expense	$ 636,202	

Overhead Expense	$ 636,202	
Total Fixed Gross Profit	$ 388,611	
Total Dealership Expense	$ 636,202	
Fixed Absorption Percentage	61.08%	**Guideline** 60%

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Customer Pay Gross Profit %	77.03%
Total Service Dept. G.P. %	78.72%
Parts / Labor Ratio (Cust. Pay Only)	0.52
Total Service Dept. Expenses	$ 636,202

SERVICE INVENTORY ANALYSIS

	Labor Sales / Month		Effective Labor Rates		Hours Billed
Customer Pay	$ 113,340	÷	160.58	=	705.8
Customer	$ -	÷		=	0.00
Customer Other	$ -	÷		=	0.00
Warranty	$ 168,213	÷	169.60	=	991.8
Internal	$ 45,492	÷	142.16	=	320.0
New Vehicle Prep	$ -	÷		=	0.00
Total	$ 327,045				2017.6

POTENTIAL

$ 327,045	÷	2017.64	=	$ 162.09			
Total labor sales for month		Total hours billed		Effective Labor Rate			
12.00	x	10	x	20.0	=	2,400.0	
# Service mechanical technicians		# Hours/Day		Working Days/Month		Hours Available to Sell	
2,400.0	x	$ 162.09	=	$ 389,022		$ 486,277.56	
Hours Available to Sell		Effective Labor Rate		Labor sales potential @100%		Labor sales potential @ 125%	

How proficient are your technicians ?

2,017.6	÷	2,400.00	=	84.07%
Total Hours Billed		Hours Available to Sell		Tech Proficiency

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Hours Per RO (RO Analysis)	2.8
Percent of One Item R.O.'s (RO Analysis)	6.00%
Customer Pay Effective Labor Rate (DMS Report)	$ 160.58
Warranty Labor Rate (DMS Report)	$ 169.60
Total Overall Effective Labor Rate	$ 162.09
Overall Technician Proficiency	84.07%

FACILITY POTENTIAL

Number of Bays	19	
	x	
Number of Days	20	
	x	
Number of Hours	10	
	x	
Effective Labor Rate	$ 162.09	
	equals	
FACILITY POTENTIAL		$ 615,952

FACILITY UTILIZATION

Total Labor Sales	$ 327,045	
	÷	
Facility Potential	$ 615,952	
	equals	
FACILITY UTILIZATION		53.10%

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Calculating Real Cost of Labor

$ 327,045	Labor Sales
2,030.0	Divided by Hours Billed
$ 161.11	= OELR

$ 327,045	Labor Sales
$ 257,458	-Labor Gross
$ 69,587	=Labor Cost

$ 69,587	Labor Cost
2,030.00	/ Hours Billed
$ 34.28	=Real Cost

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$34.28	÷	24.00%	=	$142.83	E.L.R. Needed to earn 76%
Real Cost					

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OWNER BASE POTENTIAL

6919	x	8	=	55,352.0
5 Year Owner Base		Annual Hours Purchased		Market Potential / Hours
55,352.0	x	$ 161.11	=	$ 8,917,534
Market Potentail/ Hours		Effective Labor Rate		5 Yr. O.B Sales Potential
$ 349,790	x	12	=	$ 4,197,480
Avg. Mos. Labor Sales (excluding internal, PDI and NVI)		Annualized		Current Labor Sales Trend
$ 4,197,480	÷	$ 8,917,534	=	47.07%
Labor Sales Trend		5 Yr. O.B. Sales Potential		Ouch

**Note: The industry average of 35% is very poor performance.*

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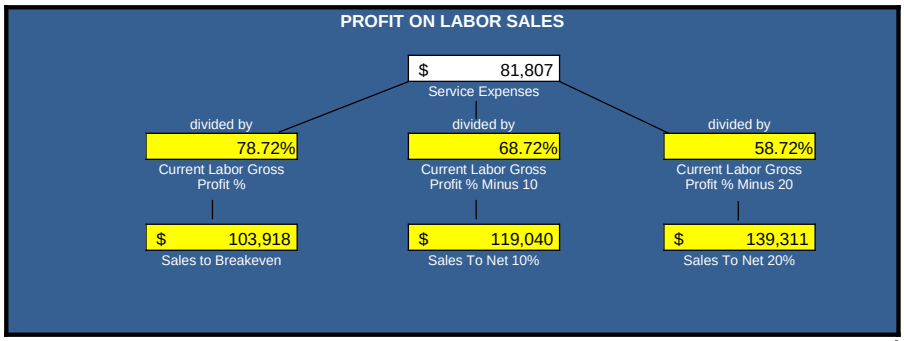

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Customer Pay Gross Profit %	77.03%	Customer Pay E.L.R.	$ 160.58
Total Service Dept. G.P.%	78.72%	Total (overall) E.L.R.	$ 162.09
Parts / Labor Ratio (Cust Pay Only)	0.52	Warranty Labor Rate	$ 169.60
Total Service Dept Expense	$ 636,202	Overall Tech Proficiency	84.07%
Hours Per R.O (recap)	2.79		
Percent Of One Item R.O.'s	6.00%		

Technician Value

Calculate using daily available hours per technician

Hours		Days		Labor Rate		Sales Value
8	x	20	x	$ 162.09	=	$ 25,935

Sales Value		Gross Margin		Profit Value
$ 25,935	x	78.72%	=	$ 20,417

Profit Value		proficiency		Adjusted Profit Value
$ 20,417	x 70%			$ 14,292
$ 20,417	x 80%			$ 16,333
$ 20,417	x 90%			$ 18,375
$ 20,417	x 100%			$ 20,417
$ 20,417	x 110%			$ 22,458
$ 20,417	x 120%			$ 24,500
$ 20,417	x 0.0%		=	$ -

Your Proficiency #

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STAFFING REQUIREMENTS

A. Sales To Break Even

Service Expenses for One Month	÷	Current Gross Profit Percent	=	Sales To Break Even
$ 81,007	÷	78.72%	=	$ 102,902

B. Sales To Generate 20% Net

Service Expenses for One Month	÷	Current Gross Profit Percent (Minus 20)	=	Sales To Generate 20% Net
$ 81,007	÷	58.72%	=	$ 137,949

C. Technician Value

Daily Work Hours	X	Average Proficiency Rate	X	Overall Effective Labor Rate	X	Work Days Per Month	=	Technician Value
8		80%		$ 162.09		20		$20,748
8		90%		$ 162.09		20		$23,341
8		100%		$ 162.09		20		$25,935
8		120%		$ 162.09		20		$31,122

D. Staffing To Break Even

Sales To Break Even	÷	Technician Value		=	Staffing
$ 102,902	÷	20,748	@ 80%	=	5.0
$ 102,902	÷	23,341	@ 90%	=	4.4
$ 102,902	÷	25,935	@ 100%	=	4.0
$ 102,902	÷	31,122	@ 120%	=	3.3

E. Staffing To Generate 20% Net

Sales To Generate 20% Net	÷	Technician Value		=	Staffing
$ 137,949	÷	$ 20,748	@ 80%	=	6.6
$ 137,949	÷	$ 23,341	@ 90%	=	5.9
$ 137,949	÷	$ 25,935	@ 100%	=	5.3
$ 137,949	÷	$ 31,122	@ 120%	=	4.4

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Service Advisor Performance

How To Set Advisor Sales Objectives To: Beak Even, Net 10%, & Net 20%

Break Even

1	Service Department's Monthly Expenses	$81,007
÷		
2	Divide by current labor gross profit % to break even	78.72%
=		
3	Equals New Sales Objective	$ 102,902
÷		
4	Number of Advisors	4.0
=		
5	Equals Sales Objective per Advisor	$ 25,725
÷		
6	Number of work days per month	24
=		
7	Equals daily sales objective per advisor	$ 1,072
÷		
8	Current overall effective labor rate	$ 162.09
=		
9	Equals daily sales objective per advisor (FRH's)	6.6

Net 10 %

1	Service Department's Monthly Expenses	$81,007
÷		
2	Divide by current labor gross profit % minus 10 to net 10%	68.72%
=		
3	Equals New Sales Objective	$ 117,876
÷		
4	Number of Advisors	4.0
=		
5	Equals Sales Objective per Advisor	$ 29,469
÷		
6	Number of work days per month	24
=		
7	Equals daily sales objective per advisor	$ 1,228
÷		
8	Current overall effective labor rate	$ 162.09
=		
9	Equals daily sales objective per advisor (FRH's)	7.6

Net 20 %

1	Service Department's Monthly Expenses	$81,007
÷		
2	Divide by current labor gross profit % minus 20 to net 20%	58.72%
=		
3	Equals New Sales Objective	$ 137,949
÷		
4	Number of Advisors	4.0
=		
5	Equals Sales Objective per Advisor	$ 34,487
÷		
6	Number of work days per month	24
=		
7	Equals daily sales objective per advisor	$ 1,437
÷		
8	Current overall effective labor rate	$ 162.09
=		
9	Equals daily sales objective per advisor (FRH's)	8.9

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Exercise to See What Happens When You Increase Your Hours Per Repair Order

Number of customer R.O.'s for the month			224
	x		
Multiply by .3 hours			0.3 hours
Additional customer labor hours generated	=		67.20
	x		
Multiply by Customer Labor Rate			$ 160.58
Equals additional Customer Labor Sales Generated	=		$ 10,791
	x		
Multiply by customer Labor Gross Profit %			77.03%
Equals additional Labor Gross Profit $ generated	=	(A)	$ 8,313
Divide Parts Sales R.O. by Labor Sales R.O. to calculate $ parts sales per 1$ of Labor Sales	=		0.52
	x		
Multiply by Customer Labor Sales			$ 10,791
	=		
Equals additional Customer Parts Sales generated			$ 5,582
	x		
Multiply by Customer Parts Sales Gross Profit %			77.03%
Equals additional Parts Gross Profit $ Generated	=	(B)	$ 4,300
Add Gross Profit from Labor (A) and Parts (B)	=		$ 12,613

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Labor Rate Calculations

1 Calculate the **Labor Rate** for the following operation.

A/C Charge and Check

Labor Price	$144.00
Hours	1.2

$399.95	÷	2.0	=	$199.98
Price		Hours		Labor Rate

2 Calculate the **Effective Labor Rate** for the following "Repair" operations.

Labor Operations	Labor Price		Labor Hours		Labor Rate
Clean Fuel Injectors	$ 117.60	÷	1.20	=	$ 98.00
R&R Rear Hub Bearing.	$ 96.00	÷	0.80	=	$ 120.00
Replace Trans. Pan gasket	$ 107.80	÷	1.10	=	$ 98.00
R&R Headlight unit (1)	$ 108.00	÷	0.90	=	$ 120.00
	$ 429.40	÷	4.0	=	$ 107.35
			Total Hours		Effective Labor Rate

(For This R.O.)

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Calculating Mark-Up

3 Using the following formula, mark-up a part costing $6.72 to attain a 35% gross profit (round to the nearest cent)

100%		35%	=	1.54
100%		Desired Gross Profit percent		Mark-Up Factor
$6.72	X	1.54	=	$10.34
Part Cost		Mark-Up Factor		Retail Price

4 Calculate the "Weighted Average" price at a 40% Gross Profit for the following parts (round to the nearest cent)

Item	Cost		Annual Turnover		Total Cost
Filter #1	$4.36	X	112	=	$488.32
Filter #2	$4.01	X	56	=	$224.56
Filter #3	$3.56	X	85	=	$302.60
Filter #4	$3.86	X	202	=	$779.72
Filter #5	$3.51	X	36	=	$126.36
	Total Items		491	Total Cost	$1,921.56

$ 1,921.56	÷	491	=	$ 3.91
Total Cost		Total Items		Weighted Average **Cost**
$ 3.91	X	35.00	=	$ 136.97
Weighted Average Cost		Mark-Up Factor		Weighted Average **Price**

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Cost Of A Come-Back

Lost Customer Opportunity		137.0	
Average Hours per R.O.	X	2.8	
	=	382.2	
Effective Labor Rate	X	$ 162.09	
Lost Labor Sales	=	$ 61,957	(A)
Service Department Gross Profit % (Excluding Sublet)	X	78.72%	
Lost Labor Gross	=	$ 48,774	(B)
Lost Labor Sales		$ 61,957	(A)
Parts / Labor Ratio	X	0.52	
	=	$ 32,051	
Parts Dept Gross Profit % R.O.Sales	X	39.96%	
Lost Parts Gross	=	$ 12,808	(C)
Lost Labor Gross		$ 48,774	(B)
Lost Parts Gross	+	$ 12,808	(C)
Total Lost Gross	=	$ 61,581	

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