




CERTIFIED ENERGY EXPERT
TRAINED. TESTED. TRUSTED.

BUSINESS ACUMEN MODULES

Joe. Arrigo
April 2024

1

PURPOSE OF THIS SESSION

- Share topics I have developed
- Modules designed to further internal discussions and actions within your organization
- Create conversation about what should be covered in topics
  - Open to your suggestions
- Create content that has true value to your business and our industry

CERTIFIED ENERGY EXPERT
TRAINED. TESTED. TRUSTED.

2

2

UNDERSTANDING COSTS & Bidding Work

1

DETERMINE ALL YOUR COSTS

ACCURATELY MEASURING WORK

CONSISTENCY IN PROCESSES

COMPARE ESTIMATED TO ACTUAL JOB COSTS

CALCULATUNG PROFIT



Inventory

2

GREATEST COST LINE ITEM ON P&L

POOR INVENTORY CAUSES A SLEW OF EXPENSIVE PROBLEMS

HAS DIRECT IMPACT ON CASH FLOW

IT'S AN ASSET! THAT OFTEN GETS NEGLECTED



Navigating Small Business Challenges

3

COMMON BUSINESS CHALLENGES

SOP'S / OPERATIONAL PROCEDURES

JOB COSTING

FINANCIAL BENCHMARKING

KEY PERFORMANCE INDICATORS



4

4

CAPTURING COSTS TO DETERMINE BIDDING PRICES

DETERMINING COSTS

- Material Cost
  - Highest vendor
- Tax
- Handling Costs
- Direct labor
- Labor burden
- Overhead, vehicles, insurance, commissions, bonuses
- Building costs, rent, electricity, gas, maintenance, etc.

SETTING PRICES

- What margin do you plan to charge?
- What does customer expect to pay?
- Lifecycle, technology of How much do your competitors charge?
- product, perceived value
- What are service or other differences between you and competitors?

MEASURING / BIDDING

- Plan Take-off
- Physical Take-off
  - Gross Sq. Ft
  - Gross less Fenestrations
  - Goss less Fenestrations and Framing

7

CALCULATING COST/SELLING PRICE OF MATERIAL PER SQ. FT.

EXAMPLE:

R-VALUE	COST PER SQ. FT.	TAX 6.0%	COST + 6% MARKUP	DIRECT LABOR	LABOR BURDEN 16%	OVERHEAD 23%	TOTAL COST
R-13	0.500	0.03	0.562	0.09	0.014	0.140	$0.81
R-19	0.750	0.045	0.859	0.100	0.016	0.200	$1.17

R- VALUE	TOTAL COST	25% MARGIN (Cost/75%)	30% MARGIN (Cost/70%)	35% MARGIN (Cost/65%)	40% MARGIN (Cost/60%)
R-19	$0.81	$1.09	$1.16	$1.25	$1.35
R-30	$1.17	$1.56	$1.67	$1.80	$1.95

8

8

LABOR & INSTALLATION CONSIDERATIONS

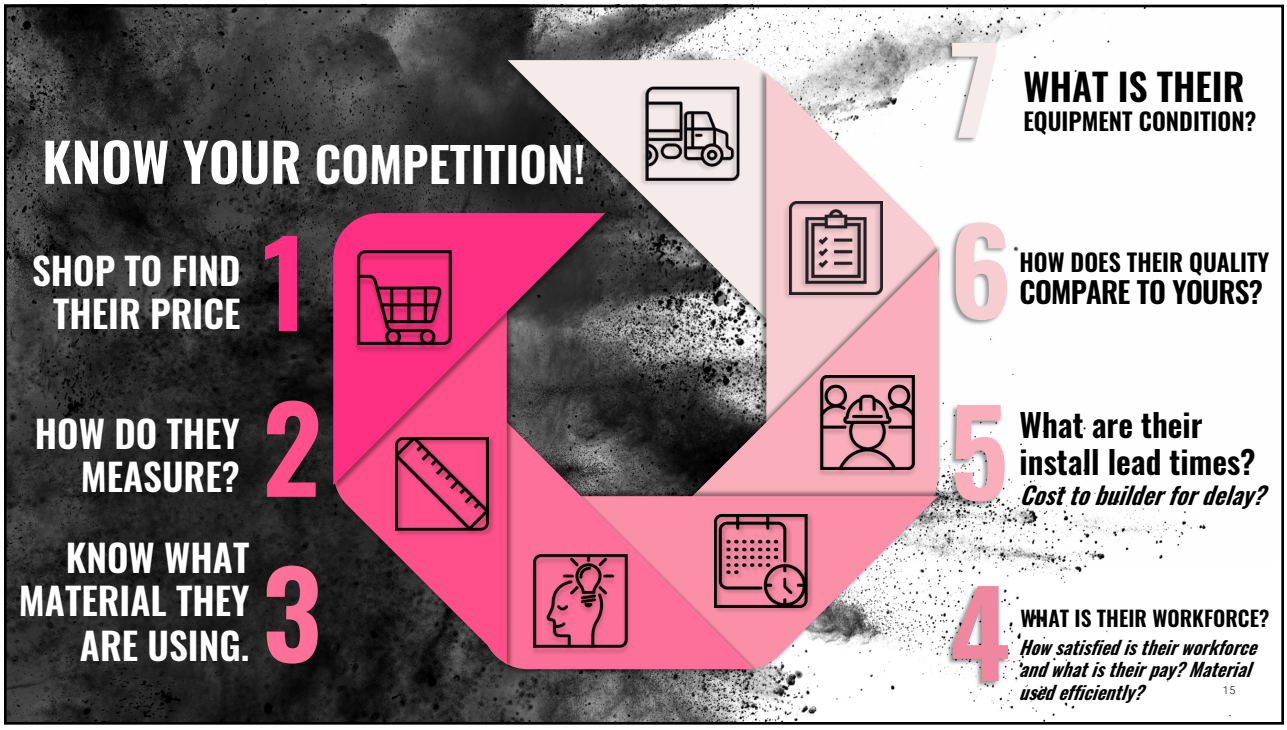
Labor

- Hourly pay?
- Piece rate?
- Hybrid Pay?
- Direct labor
- Labor burden
- Productivity expectations

Installation

- Job site considerations?
  - Number of stories
  - Other trades in the way
  - Drywall stocked
  - Owner/builder
- Drive time
- Difficulty of installation
- Additional equipment costs

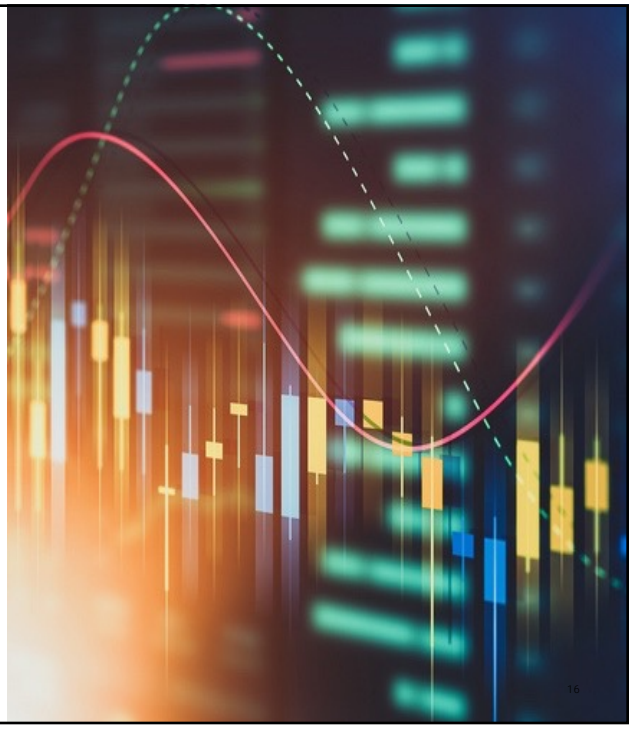
10



15

ADAPTING TO MARKET CONDITIONS

- Adjusting for price changes
  - Price increases
  - Market erosion
  - Labor costs
- Changes in market
  - Builder mix
  - Housing starts
  - Commercial / Multi-family
  - Demand for Retro-fit
  - Interest rates
  - Changes in footprint of average job?
- Growing business
- Right sizing business for market conditions



16

PRICING JOBS THAT WILL BE IN DISTANT FUTURE

HISTORICAL PRECEDENCE

(3 PRICE INCREASES PER YEAR, AVERAGE IS 6% EACH)

CONTRACTUAL AGREEMENTS

(ALLOW FOR ESCALATION IN PRICE?)

DON'T FORGET TO CONSIDER RETAINAGE

ANTICIPATED CHANGES IN FUTURE?

ECONOMY
INTEREST RATES
LABOR COSTS (DIRECT, LABOR BURDEN, INDIRECT COSTS)

17

INVENTORY MANAGEMENT

Continually monitoring and working on improving inventory control will pay huge dividends to the company's bottom line, and ultimately make your company stronger.



18



MANAGING YOUR INVENTORY

Materials are often the most expensive cost an Insulation Contractor has, so controlling and managing inventory are critical to maintaining a profitable business.

- Dispatching inventory
- Inventory usage
- Inventory returns
- Inventory levels
- Inventory balance
- Predicting inventory needs/managing orders

19

19

STEPS TO MANAGE Inventory

01 Assess
What you do you have now?

02 Review
- Review inventory turnover
- Material SKUs that are most used

03 Assess
Inventory turns
How much do you need?

04 Analyze
Analyze sales — Inventory cost to carry

05 Identify
Identify items to repurchase or retire.

Total Inventory Value / Average Annual Inventory Costs = Carrying Costs

20

20

MONITOR MATERIALS

- Phase of job
  - Inventory loaded
  - Inventory returned
- Inventory needs by job estimate
- Accuracy of estimated materials by sales rep
- Monitor material coverage by builder/plan
- Material coverage by truck/equipment — maintenance
- Materials used by crew — over claim, returns, etc.
- Percentage of jobs completed in large jobs



21

JOB COSTING

SIMPLE JOB COST

Estimator:	
Contractor:	
Job Address:	
Crew:	

Item	Sq. Ft./PKG	Cost per Unit	Estimated: By Bag	Used	Mat. Difference	Est. Mat. Cost	True Mat Cost	Mat Cost Difference	Mat & Pay Difference	Piece Rate $	Est. Pay	Pay Diff	Pay
L-77	1	$38.50			0.0	0.00	0.00	0.00	0.00			$0.00	
R-11 15x96	170.67	$98.61	3.0	4	-679.7	1.73	394.44	(392.71)	(409.78)	$0.10	$51.20	-$17.07	$68.27
R-13 15x105	106.56	$64.13	10.0	10	-1055.6	6.02	641.35	(635.33)	(635.33)	$0.10	$106.56	$0.00	$106.56
R-19 15x93	77.5	$51.00	10.0	10	-765.0	6.58	509.98	(503.40)	(503.40)	$0.10	$77.50	$0.00	$77.50
R-21 19x93	77.5	$53.79	4.0	3	-228.5	2.78	161.36	(158.58)	(150.83)	$0.10	$31.00	$7.75	$23.25
R-30 24x48	88	$82.44	10.0	12	-1046.0	9.37	989.29	(979.92)	(997.52)	$0.10	$88.00	-$17.60	$105.60
R-38 24x48	64	$75.63	10.0	10	-630.0	11.82	756.29	(744.47)	(744.47)	$0.10	$64.00	$0.00	$64.00
Cans Foam	1	$8.00	4.0	4	0.0	32.00	32.00	0.00	0.00	$1.00	$4.00	$0.00	$4.00
Baffles	1	$0.75	24.0	28	-4.0	18.00	21.00	(3.00)	(6.00)	$0.75	$18.00	-$3.00	$21.00
Poly	1	$1.00			0.0	0.00	0.00	0.00	0.00	$0.04	$0.00	$0.00	$0.00
Other	1	$0.75			0.0	0.00	0.00	0.00	0.00		$0.00	$0.00	$0.00
Other	1	$1.00			0.0	0.00	0.00	0.00	0.00		$0.00	$0.00	$0.00
					TOTAL	88.29	3,505.71	(3,417.42)	(3,447.33)		$440.26	($29.92)	$470.18

Selling Price:	$5,400.00
Estimated Cost:	$528.55
Actual Cost:	$3,975.89

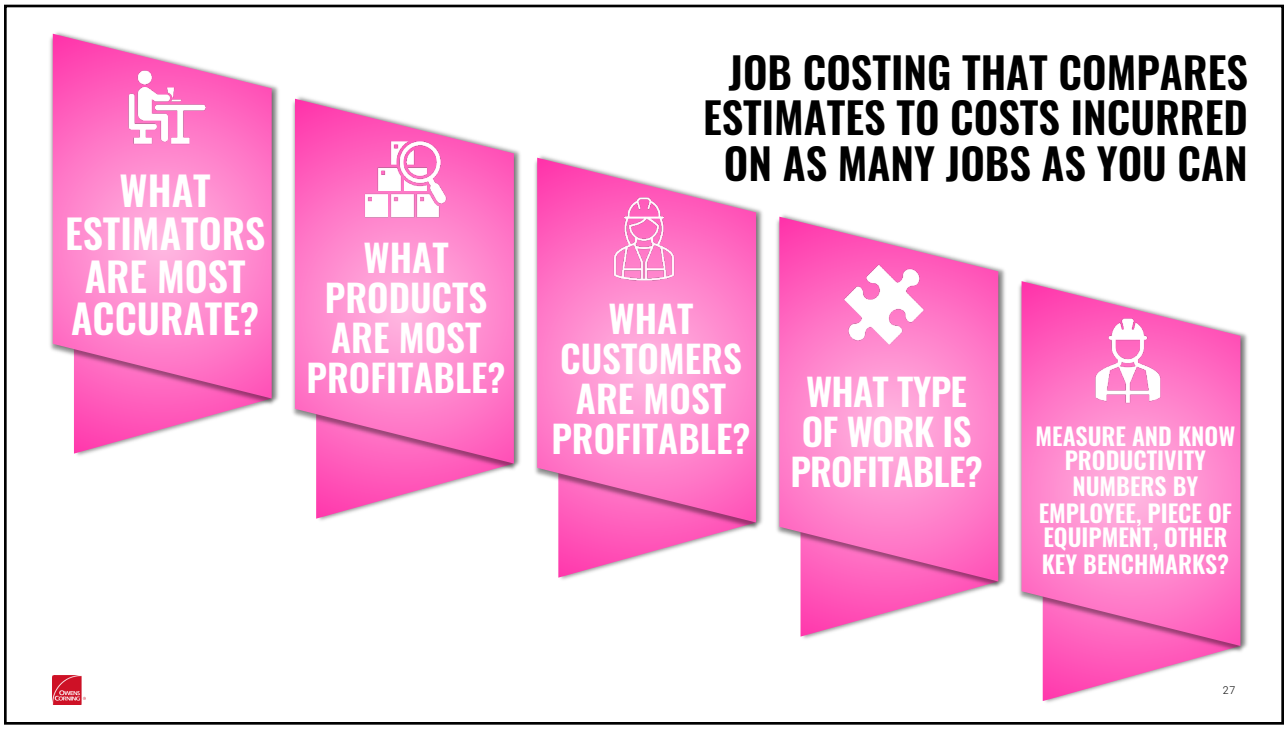
Estimated Profit	**Estimated Margin:**
$4,871.45	**90%**

Actual Profit	**Actual Margin:**
$1,424.11	**26%**

PAY OUT	***Pay %***	***$$$***
Joe	60.00%	$282.11
Juan	40.00%	$188.07
Roberto	0.00%	$0.00

26

26



27

JOB COSTING IS KEY TO PROVIDING BETTER ANALYSIS OF YOUR BUSINESS!

General Categories

- By Job or Phase
- By Estimator
- By Builder
- By Product Type
  - Fiberglass
  - Spray Foam
  - Mineral Wool

By Work Type

- New Construction Residential
- Light Commercial (under 3 stories)
- Commercial
- Multi-Family
- Retrofit
- Fire-Stop

28

28

EXAMPLES OF THINGS TO MEASURE

PROFITABILITY/ACCURACY

TYPE OF WORK	ESTIMATED GROSS MARGIN %	ACTUAL GROSS MARGIN %	MATERIAL COST %	LABOR COST %
New Construction Builders				
Custom Builders				
Retrofit				
Production Homes				
Multi-family				
Commercial				

PRODUCTIVITY

TYPE OF WORK	ESTIMATED SQ. FT. PER HOUR	ACTUAL SQ. FT. PER HOUR	FT. PER DAY	$ PER DAY
Batts in Walls 8'	400' to 525'			
Batts in Walls >9'	250' to 375'			
Attic per Day	160 to 180 Bags per Day			
Sq. Ft. Blown Walls per Day	3,500' – 2x4 2,300' – 2x6			

- # of Estimates per Week
- $ Estimated per Month

30

30

BIG CHALLENGES FOR SMALL BUSINESSES

- Product Availability
- Price Volatility
- Money Management
- Client Dependency
- Fatigue
- Founder Dependance
- Balancing Quality and Growth

The Bottom Line
The problems faced by small businesses are considerable, and one of the worst things a would-be owner can do is to go into business without considering the challenges ahead.

If a single client makes up more than half of your income, you are more of an independent contractor than a business owner.

31

31

SMALL BUSINESS ANALYSIS

HELPFUL TO BENCHMARK FROM SIMILAR SIZE/COST BUSINESSES

Suggested Financial Benchmarks

- Material % of Cost of Goods Sold
- Labor % Cost of Job Selling Price
- Overhead %
- Profit Margin

Suggested Productivity Related

- Average Sq. Ft. per Hour — Fiberglass
- Average Sq. Ft. per Hour Attic Blow
- Average Board Ft. per Hour
- Board Ft. Coverage Per Set Open Cell
- Board Ft. Coverage Per Set Closed Cell

SMALL BUSINESS ANALYSIS

HELPFUL TO BENCHMARK FROM SIMILAR SIZE/COSTS BUSINESSES

Suggested Financial Benchmarks

	BEST	MEDIAN	LOW
Working Capital Turns	13.4	7.9	4.2
Debt to Equity	.5	1.2	2.7
A/R Collection (days)	62.3	53.5	65.6
Inventory Turns (days)	22.2	35.2	63.3
Accounts Payable (days)	2.1	4.4	52.2

Key Financial Ratios

- Liquidity
  - Working Capital = Assets – Current Liabilities
- Current Ratio — extent to which current assets are available to satisfy current liabilities
  - Current Assets/Current Liabilities — A current ratio of 1.3 : 1 or greater is ideal
- Quick Ratio — Company's ability to meet its current obligations with its liquid assets

$$\frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

SMALL BUSINESS ANALYSIS

HELPFUL TO BENCHMARK FROM SIMILAR SIZE/COSTS BUSINESSES

Suggested Financial Benchmarks

- Material % of Cost of Goods Sold
- Labor % Cost of Job Selling Price
- Labor Burdon % of $ Earned
- Overhead %
- Commissions

	UPPER	MEDIAN	LOW
Sales	100%	100%	100%
Material	63.2%	53.5%	47.5%
Direct Labor	22.2%	16.7%	14.3%
Variable Expenses	9.0%	4.5%	2.1%
Gross Profit	32.5%	22.5%	19.3%
Fixed Expenses	24.1%	18.6%	15.3%

34

34

FORECASTING MATERIALS — ORDER MANAGEMENT

Company's ability to forecast materials needed to keep jobs flowing, knowing:

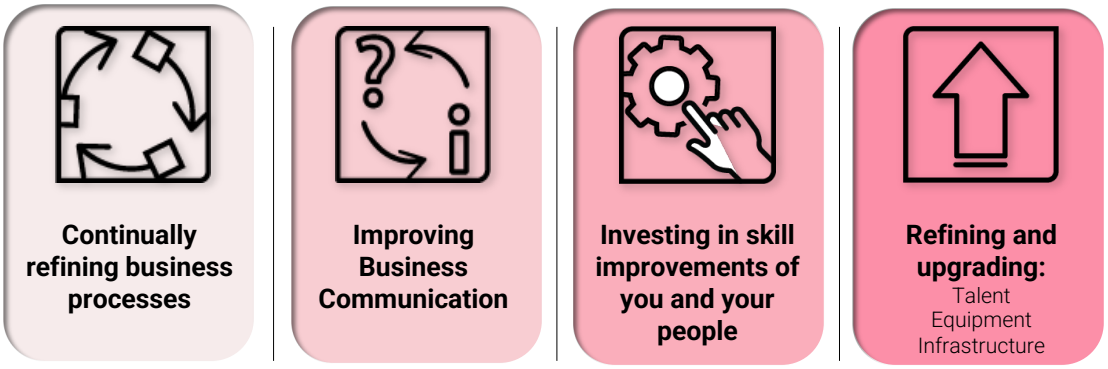
- Industry demand
- Industry capacity
- Raw materials volatility
- Alternative/backup distributer or supplier
- Managing in-stock inventory
  - Inventory turns
  - Inventory rotation



35

35

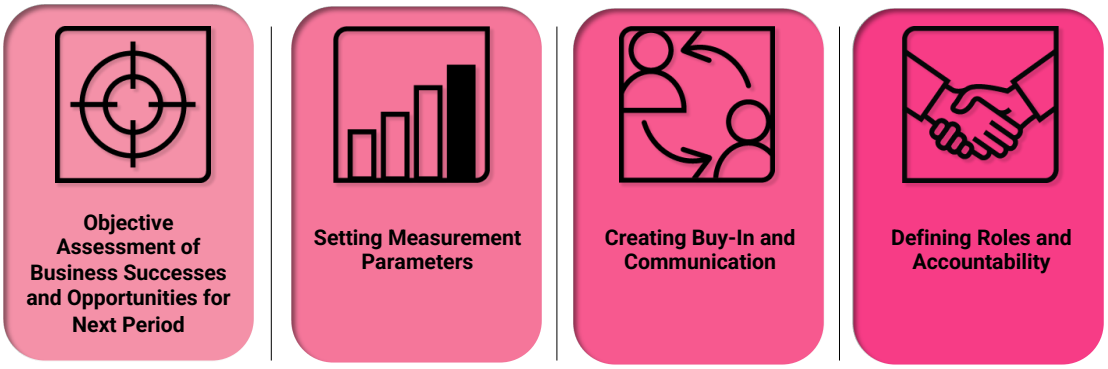
CONTINUOUS IMPROVEMENT



36

36

ANNUAL REVIEW, UPDATE GOALS, AND SCENARIO PLAN



39

39



41