HVAC LEARNING CAMPUS

OPERATIONS ACCOUNTABILITY AI PROMPTS

PROMPT 1

I am participating in the HVAC Learning Campus Operations Accountability workshop today. My first step is to complete my Theoretical Production Analysis for **K-T Heating and Airconditioning** Located in **Katy, TX at 77493**. We have **23** workdays per month and are averaging **184** Direct Labor hours per month. My Replacement team consists of **6** technicians which represent **3** crews with a total direct labor cost of **$81** per hour for the replacement team, the average replacement job is **$5400** and takes **1** day for a crew to complete. I have a new construction team that consists of **2** technicians that make up a **2**-person crew with a total direct labor cost of **$24** per hour for the new construction team, an average new construction job is **$7000** and takes **4** days for a crew to complete. I have **8** Service Technicians that cost a total of **$120** an hour for the entire service department and have an average ticket of **$160** and take **.25** days for a technician to complete a service call. I have **4** maintenance technicians that cost a total of **$44** an hour for the maintenance department and have an average ticket of **$85** that takes **.25** days for a maintenance technician to complete a call. I have **2** IAQ technicians that make up a **2**-person crew at a total cost of **$20** per hour for the IAQ department and have an average ticket of **$1300** which takes one day for a crew to complete a call. And a floater that we pay **$18** per hour.

Please us the following logic to complete the Theoretical Production Analysis: Direct Labor Hours per month X Total Direct Labor Cost of = Labor dollars (No Overtime) run this for each department separately, Number of Crews X Average Job X (Number of workdays/ Days to complete) run this for each department.

Then complete the modification factors for each department. We have a **3%** weather inefficiency and a **15%** overtime inefficiency along with a **4%** scheduling inefficiency. For each department, calculate the **total labor cost** by multiplying the hourly labor rate by **hours per month 184**. Then, calculate the **productive hours** after applying inefficiency factors (weather, overtime, scheduling), and continue with the job and revenue calculations as previously done. Overtime inefficiency should only impact total labor cost.   What is my target Theoretical production capacity and what is my projected labor percentage by department. Please summarize the total revenue for my company and labor cost.

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PROMPT 2

I want to do a market share analysis for K-T Heating and Airconditioning utilizing the information from the previous prompt. For the last 12 months here are my total revenues. January **$337,600**, February **$332,600**, March **$388,500**, April **$489,900**, May **$376,200**, June **$411,400**, July **$586,000**, August **$499,700**, September **$256,100**, October **$316,000**, November **$280,000**, December **$337,000**. We serve a **15**-mile radius around our Zip Code. Please exclude revenue estimated from New Construction. Please pull single family home data from the U.S. Census Bureau. For residential replacement furnaces are replaced every **15** years and Airconditioning systems are replaced every **12** years, Major service occur about every **5** years and maintenance should be performed **2** times per year. About **25%** of all customers invest in IAQ every **10** years. What months exceed my production capacity and months are below my production capacity. What are my three slowest months? What is my current Market share? What is the annual market potential? What is my annual revenue?

PROMPT 3

Based on previous prompts please analyze the following - Residential HVAC sales are driven by weather furnace sales are driven when temperatures drop below a daily average of 50 degrees Fahrenheit and Airconditioning sales are driven when average daily temperatures go above 80 degrees Fahrenheit. How do my sales track compare to the weather data for my marketplace?

PROMPT 4

Based off of all previous data I would like to create a marketing plan based off of demographic and Psychographic data for this market. We would like to increase our market share by 3% and have a marketing budget of 10% of total revenue. We would like to fill our production capacity by scheduling tune ups during our slower times to maximize our production capacity and increase lead turnover from service and maintenance to drive replacement sales. We would also like to increase our maintenance agreements from 300 to 1000 (These are prepaid tune-ups) We would also like to increase subscriptions to Daikin Cloud services increasing customer loyalty. We believe there is an opportunity to increase average tickets by aligning with the Inflation Reduction Act and local utility rebates as well as increasing IAQ sales. Please include a training plan for employees as part of this plan. Please create a marketing calendar.

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PROMPT 5

Operations Accountability has both commandments and principles that have been established for long-term success. Please analyze these metrics based on previous prompts and help me develop a KPI dashboard. Increase Maintenance agreements so that service is 30% of revenue, Control Operating expense so that it is no more than 30% of revenue of the three slowest months, train and teach your entire staff how to operate a company profitably. Equipment costs less than 25% of replacement sales, Gross margin equal to or greater than 42% of total company revenue, Revenue per employee greater than $225,000, maintenance agreements equal to or greater than 500 per $1,000,000 in total revenue, Field to office employees Equal to or greater than 4 to 1, All replacements completed in one day or less, Replacement sales financed equal to or greater than 40%. Closing % equal to or greater than 40%. Replacement leads from service equal to or greater than 20%, replacement leads from Maintenance equal to or greater than 25%. How many leads need to be generated from marketed leads to reach established targets?

PROMPT 6

Based off of previous information I need to establish targets for Operating Expense in the following categories. Marketing, Employee Related, Plant & Equipment, Vehicle Related, Administrative, Other Income/Expense. Marketing is determined by the aggressiveness of the organization less than 3% of total revenue will maintain business, 3 to 5% of total revenue will grow business as steady rate above 5% is aggressive growth, Employee related is the largest portion of operating expense and should target below 13.2% plant and equipment should be below 3.45% Vehicle related should be below 3.4% Administrative should be below 3% and other income should be less than -1% all calculations should be based off of an average of the three slowest months.

PROMPT 7

Now I would like to create an Operating Profit Projection plan by month for the following categories: Replacement Sales, Service, Maintenance, IAQ, New Construction. This will be based off of all previous information provided today. The target Direct cost models will be as follows for Residential Replacement: Parts/Material 7%, for Labor 8%, for Equipment 24%, for Subcontractors .3%, for permits .4% for, warranty Reserve and extended warranties 3%, for Buydowns 3%, for Rebates Received 3% (This is a credit), Equipment Rental .1%, Warranty Parts/Labor 2%, Allocated Fringe Benefits 4%, Sales Commissions 8%, Sales Salaries 0%. For Residential Service: Parts/Material 13%, Labor 22%, Warranty Parts/Labor 4%, Allocated Fringe Benefits 7%, Sales Commissions 3%. For Residential Maintenance: Parts/Materials 6%, Labor 34%, Allocated Fringe Benefits 9%, Sales Commissions 4%. For Indoor Air Quality: Parts/Materials 20%, Labor 18%, Allocated Fringe Benefits 7%, Sales Commissions 10%. For New Construction: Parts/Materials 11%, Labor 12% Equipment 29%, Permits .6%, Allocated Fringe Benefits 3%, Sales Commissions 1%. Please include by month Total Operating Expense and Budget EBITA in both dollars and %.

PROMPT 8

Based off of previous information I need to create a model for my company in 2025. What is my annual billing plan for Service, Maintenance, Replacement, IAQ and New Construction and how many techs are required to accomplish each of these goals? What office staff positions are required and how many: GM, Operations (Sales, Service, Install, Warehouse), Administrative, Accounting, Dispatcher, CSR, how many outside salespeople will I need to handle lead volume if they can perform 3 sales calls per day. What is my total employee count and what is my revenue per employee. Based off of average salaries in my area what should the compensation package look like for each employee? How many maintenance agreements do I need to have and how much volume in sales should each salesperson complete on an annual basis?

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PROMPT 9

Please summarize all of this information into a formal business plan for FY2025 with Top 3 Goals for the organization and KPIs to track on a daily, monthly, and quarterly basis. Include marketing plan and lead generation strategy by month to maximize production capacity as well as monthly budget. Analyze current sales prices in market to determine strategy to sell more inverter heat pumps, IAQ and maintenance agreements. Also create an employee retention and recruiting strategy that aligns with customer recruiting and retention strategy to increase overall customer lifetime value. This plan should deliver double digit net profitability and reflect a 5% equipment and parts price increase in FY2025.