

SPRAY TIME



**Creating a Job Shop
Business Plan**

ITSA Scholarship Spotlight



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How a **BUSINESS PLAN** Can Help You Make the Best Decisions for Your Coating Job Shop

I work with a lot of job shops that, for the most part, are also small businesses. A question I often get is, “Which spray process is the best and what equipment should I buy?” That might seem like a simple question but it’s not. Should a shop consider high-velocity air fuel (HVAF) or high-velocity oxygen fuel (HVOF)? Laser cladding? How about twin wire arc vs. combustion flame spray? Maybe cold spray? There are many options, and so the question should really be, “what spray process makes the most sense for my business and customer?” Business owners want to make an investment that will return the most profit and business growth.

I stress to my customers they need to build, buy, or install processes that their customers will buy. While HVAF has a lot

of impressive benefits, if it doesn’t produce a coating that your customers will buy, it is not a good fit for your business. Don’t do ready, fire, aim. Writing a business plan is the best formula for deciding any capital expense, including adding a spray cell — Fig. 1.

Writing a business plan is not as hard or time-consuming as one might think. You can also write a mini plan for a specific project. A full-blown macro business plan is not always necessary or helpful. Going through the process of developing a plan is the most sure-fire strategy to ensure the project will be a financial winner and grow sales with happy customers.



Fig. 1 — Writing a business plan is the best formula for deciding any capital expense, including adding a spray cell.

Business Plan Segments

There are four key segments to a traditional business plan — an executive summary, a financial plan, an operations plan, and a sales and marketing plan. This article will lay out details on how to develop each section with a coating job shop in mind. We'll start with the sales and marketing plan because it includes the voice of the customer.

Sales and Marketing

The primary output of the sales and marketing plan is how much additional sales revenue the addition produces. This is where the voice of the customer comes in. Getting feedback from your customers by asking them what they want or need from your shop is important.

Dan McQuiston, a professor emeritus of marketing at Butler University, said, "Make it a point to collaborate with customers to reach a successful solution. Working with customers to reach a successful solution gives them a sense of psychological ownership. They'll feel like the decision is theirs. So, ask them, 'What is the most important coating product you want from a coating shop?' And then build on the two to three things they tell you."

It's also important to get input from your company's inside sales representatives. Are customers needing parts coated that are larger and heavier than the company's current capabilities? Is the customer needing a quicker turnaround time or lower prices? If you only have HVOF and your customers are asking for lower prices maybe a more economical spray process is an acceptable substitute for HVOF. For instance, twin wire arc is much less expensive to operate than HVOF and, in many cases, will produce a coating that will perform nearly as well. Does the customer specify a specific spray process? Many customer

engineering drawings specify HVOF, so using twin wire arc or HVAF would not be an option even if it would produce a better performing or less costly coating.

In summary, step one of a sales and marketing plan is to survey your customers and sales team to get an idea of what customers need for coating services. Then, figure out the estimated increase in annual sales that process will bring and save it for the financial plan. Next, figure out how to take the new process to market. This will include training your sales team on how to sell the new process to their customers, what sales tools (like literature and coating samples) they will need, and where to look for prospective clients that need this service.

Financial

There are two main components of the financial plan. Credits (sales revenue) and debits (capital expense costs and variable per part cost). Take the annual sales revenue estimated from the sales and marketing plan and subtract all the capital costs like a new spray booth, dust collector, spray system, and automation as well as variable part costs for powder and gases. If the resulting number is positive, you may have a winner. Next, you need to compare it to other projects to see if it is the best option.

Calculating a return on investment (ROI) and payback period are the key measurements of any capital project. If the ROI percentage is greater than 10%, that means you can make more money with the capital investment than just taking the same cash and investing it in the stock market. If the payback period is less than one year, it is also most likely a winner. Most successful companies and specifically large corporations have ROI and payback period standards that must be met before a project can be considered. A project that pays back the initial investment in three months or less is a solid winner and should



Fig. 2 — Some spray processes could require additional dust collector capacity, while others could use existing exhaust systems.

move forward. A project that pays back in two or more years presents a greater risk and should only be undertaken if that risk can be greatly reduced or eliminated. One way to reduce risk is to enter into a supplier contract with your customer where they agree to source their coatings from your shop for a set number of years.

Because funding at most companies is finite, various projects can be compared and ranked using ROI and payback period. Projects with higher ROI and shorter payback periods would be prioritized ahead of other projects and then approved by management/ownership for getting precious capital funding. This all but guarantees financial success with data-driven decisions.

Operations

Next is the operations plan, which entails listing and reviewing all the extra needs that producing coatings with the new spray process/cell may bring. This could include hiring additional

spray technicians, training existing spray techs, creating job instructions, safety considerations, sourcing consumables, generating quality standards, and more. Some spray processes could also require additional dust collector capacity, while others could get by with using existing exhaust systems — Fig. 2. HVAF and HVOF generate a lot of heat (BTUs), and existing dust collectors may not provide enough exhaust air volume to prevent the dry cartridges from becoming burnt, which ruins their filtering capability. If spraying materials will produce a dust that is highly explosive (high KST value), the type of dust collector may need to be altered.

Another consideration is if the spray booth/sound enclosure is capable of keeping the noise outside the booth below Occupational Safety and Health Administration (OSHA) standards. HVAF and HVOF can both exceed 126–136 dBA at the device. Thermal spray processes are high-frequency noise generators. If the spray booth doors no longer close tightly, noise can leak out and affect spray operators. That may necessitate adding a new spray booth to the capital expense ledger. The operations plan will identify ancillary equipment that will be necessary and thus should be included in the cost roll up.

Executive Summary

The executive summary portion of the business plan should be written last. It will be used by lenders, upper management, and ownership to decide whether the project should be funded. It will summarize the results of the other three segments and how they dovetail. Assumptions and risks can be flagged in this section, too. ROI and payback period are major financial indicators that will be key in evaluating the financial benefit of the project and should be highlighted in the executive summary. Finally, the executive summary should make the case for moving forward or not with the project.

Conclusion

Investing in any capital project solely because you can get a good deal on it (like used equipment) is risky and a poor business practice. It may turn out to be profitable, but it could also backfire. When investing in new or used equipment, I recommend stacking the deck in favor of making a profit at the end. Make a plan and work it. If your company is short on human resources needed to write a business plan, consider hiring a college student as an intern. MBA programs at colleges often need projects and may take on your business plan as their capstone project. Developing and writing a business plan will ensure your business invests in projects that will give your company the best chance at financial success. ▲

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