

THE INFRASTRUCTURE Booklet



7 STEPS TO ADVANCE YOUR BUSINESS

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Preface

I was inspired to write this after getting back from a training session. I had just finished training 70 employees on best practices of my platform, [SquareCoil](#) Software. As I talked to the team and watched their faces light up when I made connections to their day-to-day tasks, I realized that the basic foundation of running a business is being overlooked. I had made an assumption that the infrastructure of a company was established when I came to train. Looking back at my past trainings, I realized that these first basic steps were not being followed regularly.

The custom fabrication industry is fraught with details. There are so many variables that need attention in order to have a job done correctly. The myriad of conditions becomes overwhelming very quickly. In order to get through these details and make sure they are accounted for in the end product, it takes time and focused energy.

As I talked to the managers of these companies, the same conversation kept coming up: “I need to spend more time at my desk looking over the details to make sure we do it right”. I disagree with this statement.

Time is something that we cannot make more of. We cannot ask for any more time because there is no more to give. We have all of the time. We have access to all the time there is. How we use our time in the most effective manner is the question that needs to be answered. Your company needs to be an efficient machine that can handle all of the details without bogging you down. Before we can get to this level of a well-oiled machine, we need to make sure the infrastructure of your company is solid. The better the foundation, the better the company will scale.

These 7 steps are simple and easy to do. It takes time to do it correctly, but I have faith in you. It is time to build a great company on a solid infrastructure.

Introduction

My method is a continuous process of honing one's skills and ideas to make the most of your time. With a clear understanding of your company's goals, you can change the trajectory of your company with evolution. It is never too late to take back control of your own objective.

I have had the opportunity to work with hundreds of teams, learning from their successes and failures while creating a system that works well for anyone who wants the upper hand in business. I found that most of the answers were found in the financial statements of where a company was bleeding. If there was a place where the company was not reaching their full potential, it was found within the details of the financial sheets and costing analysis.



Having a business degree in accounting has given me the ability to teach others how numbers can unlock your company's full potential. My goal is to have you collect the right data, enter it into your software system and then be able to glean all of the correct information

for your review. After you have the data, you can control and drive your company into higher profit margins.

I am not an Author and I did not have a ghost writer write this for me. Please forgive my writing abilities. I simply want to teach what I have learned and help you skip to the head of the line. The term "experienced" is not predicated on time, but at how fast you can learn and apply what is taught.

STEP 1 – HAVE THE RIGHT MINDSET

I've been in the business of small business for over 20 years. I've seen companies scale much bigger than what they were. I have also watched them become stagnant and shrink. The people who succeed in business aren't always the most talented or intelligent ones out there; they're simply more resilient. They have what it takes to keep going when things aren't going so well. This mindset

is something we all need to cultivate if we want our businesses to thrive over time. So how do you cultivate that resilience? Here are some tips:



- Focus on being a positive influence
- Be positive, not negative! Don't let other people drag you down with their complaining
- Control your anxiety. Don't focus on what you can't control, but rather focus on what you can change

It's important not only for yourself but also for those around you (and even future generations) that these positive thoughts continue on an upward trajectory. The more positive energy we share with the people around us today equals less negativity tomorrow. Creating an optimistic culture where everyone benefits from each other's happiness and knowledge should be a mission of yours.

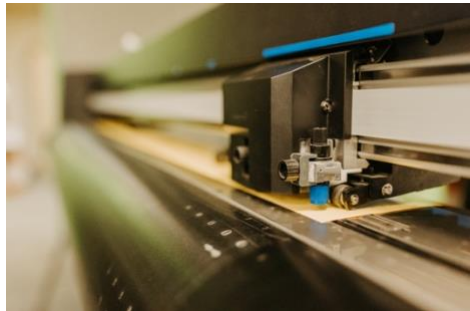
Remember that things don't always go according to plan. Something will eventually go wrong and a setback will surface. This is the exact point in time of what we are defining here. When something goes wrong during your process, make sure that you don't get down on yourself. Do not let it get in the way of moving forward. Depression and self-loathing are contagious diseases that

can steal your goals from right in front of you. Your mindset of resilience must win every battle when things get difficult.

When you're working on a long-term project, it's easy to get caught up in the moment. You might find yourself forgetting that this is one step on a long journey and feel defeated. You might think that your job is stressful or difficult with no end in sight. Seize the moment with a positive outlook. Change the trajectory of your life for the better. These mindsets can make you or break you. Want a tip on how to make a mindset strong? It starts with a smile (I bet you just smiled right now. See, it is contagious).

Every obstacle in life will be a benefit later on. If we look at history and other people's successes, we can see that this is true: they achieved great things by overcoming obstacles and taking risks in their careers. Everyone who has risen to greatness has overcome numerous obstacles. I personally am excited when an obstacle comes into my path. It means I am going to learn a new lesson and I will be stronger in the end.

When faced with adversity or uncertainty in your career path, you have two choices. Fight or Flight. When you really break it down, these are the only two choices. Each one has their place, but flight should never really be a choice if you are leading. The more you give into flight, the longer your goals will be out of reach. Instead of waiting around for things outside of our control (Landing the big project) let's focus 'fight'. Fight for what we can control ourselves: our own mindset about our situation. Fight for the actions that will affect the outcome. Fighting to make your company a great company.



Consider all of the possible outcomes that an obstacle brings. Plan for them as we prepare to fight through the obstacle. As we prepare, here are some viewpoints we should ask ourselves -

- Worst case scenario: What will happen if things go wrong? How can you prevent this conclusion from happening? Being aware of the consequence can be the difference between losing and winning
- Best case scenario: What will happen if things go right? How can you encourage this outcome and make it more likely to occur?
- Other scenarios: What else could happen in between those two extremes?

Once you have thought of all the angles, vary rarely does the prepared man end up with the worst-case scenario. You have seen it and started to account for it. I think about the worst possible outcome first. I want to see how bad things can get. Then as I work backwards from the worst outcome. As you work backwards the decisions become easier to make. This is how you prepare for the win. You bullet proof your habit to see the victory.

When you're starting a business, it's easy to get caught up in the small things. Example of this is comparing yourself to other people in the industry. You may feel like there's no way your business will succeed because theirs is doing so well. It's important not to compare yourself or your business with others--that will only give you anxiety about yourself and your prospects for success. Instead, focus on what is possible for YOU as an individual person and entrepreneur with your particular skillset.

Don't give up on yourself, keep a positive mindset when it comes to business. Focus on the positive. You can't control what other people do, but you can control your own attitude and mindset. If you keep a positive mind set when it comes to business, your business will scale.

STEP 2 – DETERMINE WHAT PROBLEM YOUR COMPANY IS SOLVING

Companies come into business usually because of an idea. They think that they can make money with a certain niche. They usually have experience in this industry and they know how to navigate the waters of the industry. The entrepreneur feels comfortable here. This is their wheelhouse.

As they come into business, they end up seeing all of the different avenues that they could make money in. They start to diversify fast and start spreading their resources. They forgot what their main objective was and why the business was created. Instead of focusing on what they know best, they end up being spread too thin and cannot react to the needs of the clients. It happens time and time again.

When you are starting a business, you need to focus on your niche and make sure this niche is profitable before you start expanding. Hyper-focus is needed here. The company you are creating or running needs to be focused on what you are solving. What problem are you trying to solve? What is your niche and what is your advantage that makes you better than anyone else? If you focus on your advantages, you will be able to create a niche in your industry. I love how a true visionary views their company.

The owner, being a leader, decided to look at the problem his company solved

Let's rewind the clock to the early 1900's. The automobile was just coming into the market and people were transitioning from horse and buggy to cars. A well-established company at the time made whips for buggies. In order to get the horses to move, you would grab the whip and hit the horse on the behind making the horse

move and start to pull the buggy. The whip started the horse to move and in turn the transportation happened.

When the automobile came around, the engine was started by putting a crank into the front of the engine and you would spin the crank to move the cylinders inside the engine around and around until one created a spark, starting the engine. This was the new way to start the transportation machine.



As the automobile grew in popularity, the demand for horse whips declined. The inventory of the buggy whip manufacturer was not turning over in the same manner. Workers were rarely needed anymore and the factory was slowly coming to a close.

The owner being a leader, decided to look at the problem his company solved. Instead of making an animal move, he came to the realization that he makes the buggies move. He did not make

whips. He made starters. His product starts the transportation machine. Instead of going out of business, he honed in on what problem he solves. He doesn't make whips; he makes starters for transportation.

You need to know what problem your company solves

His company started producing starters for the vehicles. It is a small motor that electronically spins the engine for you. His company evolved because he truly understood the problem that his company solved.

This is a perfect illustration on how to view your company. What problem does your company solve? If you are a sign shop, do you make signs, or do you notify people of what businesses are inside the building? How we view the problem that we are solving has a lot to do with our mission statement, and how we guide our company.

Before we can go to step 3, you need to know what problem your company solves. Please create your mission statement and your vision of how you want your company to be seen based on how your company solves the problem.



STEP 3 – ORGANIZE YOUR COMPANY

How many paths of travel should you have in your company? When the product is built in your factory, how many different paths should you create for your company to be the most efficient? The answer is one. The more paths you have to the finish line, the more confusion is brought to the team. People end up confusing which path they are on, forget steps along the way, and in the end, create an inferior product. It is confusing for the employees to keep track of which path is used for what style of manufacturing. Remember the acronym for K-I-S-S? - Keep it simple stupid. This

is one of those times. A single path created in your organization will reap the most benefits in the long run.

They must know their role and the role of the other team members.

With one path of travel, you can start to dial in what each person does for your company. Your mission is to make sure everyone's on the same page. They must know their role and the role of the other team members.

You cannot have a successful company or an efficient organization if your team is confused on their role. You need to have clear goals and a clear agenda for each employee. If I were to walk into your place of business and pick a random person, could they tell me their duties? Historically when I ask this question, people will tell me the steps of the whole company. They see the overall goal, but they do not understand what their specific role is. Their understanding of their role should be clear and concise. They should know when their role ends and who should receive the product next after their role is complete.

Pro Tip - Make sure that each team member knows the role in reaching YOUR goals. Yes, you want a well-oiled machine for a company, but make sure the goals of each person align with your mission statement and what you are trying to achieve. In asking yourself this question, you might end up realigning a few positions in the company.



As a manager/owner, you need to tackle these two objectives:

1. Does everyone know what is expected of them when they are at work?
2. Do they have the equipment and materials at their disposal in order to perform the tasks expected of them?

I coached a company and they had hired a consultant for the last 6 months to help them get on track prior to my arrival. This consultant had a great idea on paper and looked very promising. I was excited to see what progress had been completed when I arrived. Upon arrival, I started to witness his workings. He had multiple paths for success laid out, his strategy was circular and projects seemed to never end. The execution and implementation had been delivered poorly. This led to chaos in the shop and people not knowing where they started and stopped. The type A personalities took over and 20% of the people did 80% of the work. The 20% managed to piss off the other 80% of the work force. The company was in need of an overhaul when I arrived. The worst part is, they paid for this! The company was in better shape before they brought the consultant in.

With my curiosity peaked, I had to know more. While discussing with the owner I asked how everything was working and he just looked at me and shrugged his shoulders. You could tell in his posture that he had gone so far down a rabbit hole, that he did not know how to turn around and get out! I felt bad for him and gave him a suggestion to take the highlights of the consultant's ideas and use them with my system. That was the best advice I could give without undoing the situation and starting over.

The end result: They did not know the clear linear path to success and ended up creating unnecessary steps. The roles were not defined and chaos followed.

Outlining in written form what is expected of each member is a good starting point. Follow these parameters:

- Does the employee understand their specific role?

- Do they know where they start and stop in their role?
- Do they know who should be made aware of their stopping point so another may begin?

When I am evaluating a company, I will pick an employee and ask these very questions. What is uncovered here is big. If the owner understands the importance of specific roles and has specifically told the team, we are in good shape. I might even suggest we move onto Step 4. If I find that the owner is spending most of his time and energy correcting this failed step, then this will be the focus of our [training session](#).

STEP 4 – CREATE A WORK PATH FOR ALL SCENARIOS

Whenever I talk to an owner, they have one of two mindsets. Although a bold statement, it tends to be true when you get down to the core of the company organizational chart. The first mindset is to have all projects go through one path from start to finish. Along the path, the product gains value until it is ready to be delivered to the client. All projects will go through the same yellow brick road to success.

The other mindset is to have a variety of paths. Each project will take a different course through the company. The multiple paths are designed to be short cuts through the system. If a project needs paint, it will go through a different path than if no paint is necessary. If a project needs installation, a different path is created.

Do you know which path is the correct one? If you said the first path, or the single path, then you are Right! One simple change here can really add value to the company and to your bottom line. One path will be more repetitive and more we practice, the better we become. The more we practice the CORRECT way I should say, the better we become. You can practice doing something

wrong over and over, and you will may get really good at doing it wrong. Don't make the mistake that practice makes perfect.



When I was working construction, we were tasked with moving 50 bags of concrete from one side of the construction site to the other. It was going to take all day and probably a lot of advil at the end of the day if I went by conventional methods. I did not want to carry on my shoulder all of the concrete sacks. Instead of picking up one bag and walking from one side of the site to another, I recruited others to make a single file line and handed the bags to one another. The bag moved from one corner of the property to the

other with little effort for any one person. This is an example of setting a path for your company. With each giving the same amount of effort, there is no one place where the company will

struggle. If too much responsibility is put on individual or group, it will slow your ability to scale. This is not a good business model.

Have you created an organization chart? Then compared it to your flow chart of how your projects should flow through your company? They should line up pretty close. You want a person there for every step of the way. Just likes the bags of concrete, we had a person there for every 5 feet to make sure it was successfully moving from point A to point B. Your company is no different than the example above.

If you argue that you need to have multiple paths for success, you might have two companies under one roof. Make sure that you have one goal for your company. I have seen this mistake as well.

Someone who does it all, does nothing well. Could you imagine if we had two different paths for the concrete to be handed off? One person would have to decide who to give the bag of concrete to when the path forked. Why would he pick one path over another? Would he alternate paths? More questions arise when you add complexity to a situation that does not warrant it. One path = simple and easy.

Each customer that comes into your business needs a path to follow as well. If you have too many paths, then the customer will be lost and the employees will be confused. We know we need to be organized and we need to have one path for success for production. Sales or the front end of the process needs the same organization.

Create a path for your customers first. What is the most streamline way to get the client what they want? Let's picture making a sandwich. They will need bread, meat, mustard, mayo, cheese, lettuce and maybe a pickle. This is a very simple process. Subway streamlined it to maximize efficiency. They showed you the different ingredients and let you point to them as they made the sandwich. Could you imagine if you could bring your clients into your place of business, they point with little effort, and walk away with exactly what they want? This is a perfect path of success. This is what we want to give to our clients.



Please do not confuse options with a successful path. I have watched as companies stripped away the options, they offered their clients. They thought this made the path easier to achieve and one product was the only way to maximize profits. While I agree it is simple to make a widget into highly profitable product, it is not the industry I am talking to. It is the custom manufacturing industry. We give people a one off, unique experience every time. We need options. Options are our friend.

Please view options as adding value along the one path to success. Giving clients options you offer as it relates to their project is wise. It adds value to your company as well.

PRO TIP: make sure it is offered to them in a manner that works best for your company. I worked with a company and the owner wanted to ask his clients on the **FIRST** conversation if they were going to be paying cash or if they needed financing. No matter what the size of the project was, he insisted that his team ask this question. It was a bad sales pitch and the question was asked at the wrong time. During the initial contact, the client did not know the price of the project so he could not make a decision to finance the project. They would give no answer or probably the wrong answer. It was the wrong time to ask in our path to success. Options are great, as long as they are offered at the right time.

As you keep your business running, it's important to have a path that customers can follow. How customers navigate your business is important to ensure that it is easy for them. One path for all scenarios will ensure efficiency in your business. Make sure you review this path often. As your market changes, small changes in your path will yield higher returns.

STEP 5 – MAKE MEASURABLE GOALS

Setting goals is key to achieving success. It doesn't matter how ambitious or unrealistic your goal is; if you can measure it and compare your actual results with your estimate, you'll be able to tell whether you're headed in the right direction.

Estimating is one of the core infrastructures in the custom fabrication industry. You will need an [estimating system](#) that breaks out materials, labor and buy outs. The reason for this breakout is because you are setting goals. Imagine you are setting a goal to walk the entire continent of the United States from ocean to ocean. If you did not think about anything else and just started walking, you will probably not succeed in your goal. Why? Because you are looking at the objective from too high of a view. You will need to eat, sleep, rest, figure out clothing and weather conditions. Focusing on the details will help.

Let's say you want to lose weight. You might set a goal like "I will lose 20 pounds." While this is a good goal it is not specific enough. If you do not know the timeframe, then how are you going to know if you've achieved your goal? Instead of saying "I'll lose 20 pounds," let's break down the goal into more manageable steps. If you gave yourself 4 months to achieve this, then you can determine that you need to lose 5 pounds a month. A better goal would be "I will lose 5 pounds a month, weighing 170 pounds by June 1st". This mind set keeps you on track for the finish line with incremental steps along the way.

Use this same analogy when determining an estimate for the project. Instead of looking at the product in its entirety, Break it down to smaller steps. Look at router time and metal time vs just one big pool of hours. Sit down with your team and discuss how much time you need to spend in each department. Make sure the time allotted is fair to complete each task inside the project. Once

you decide on how long a project should take, then you can put a price to your time.

If I say that you have 400 hours to accomplish the goal, by the end of the project, you will be over budget. The employees see the big number, think they have lots of time and proceed to go over budget. Labor departments need to be broken out in your [estimating system](#). How long to program your routers? How long does your paint department need to coat your product? The reason for this is – smaller bit size pieces are easier to compare and easier to understand when you are trying to reverse engineer. Break your labor departments up into logical sections, then not only will it be better for your estimating team to work with the template, but the team that is fabricating will also know where they start and stop on the project.

Estimating correctly is a perfect way to set goals for your team. It helps you be more accurate and realistic about what you can accomplish. Clearly defined goals can be followed and repeated. Your team will have a road map to success every time.



STEP 6 – RECORD YOUR PROGRESS

Record your progress. Sounds easy. Have you ever recorded what you are eating over the course of a week? Sounds simple. Put a small notepad in your back pocket and every time that you go to eat something you write it down. At the end of the week, we review what we wrote down and add it up. You ate 6 sandwiches, 4 donuts, 2 steaks, etc. What does this data mean to us? Not a darn thing. We have no way to qualifying what a donut is or if it is good or bad calories going into our body. The exercise of writing down the food we ate was a waste of time.

The food is the not the thing we are looking for. We need to know the calories and breakdown of those calories. We need to know protein, carbohydrates, and sugars that we are ingesting with each meal. Now the recording of the food we eat with the breakdown will give us really good data that we can use to record our progress. With this data, we have a way to correct our waist line. Correlate the calories to waist size and we can know how to change the trajectory to obtain the final outcome.

Running a business is no different than counting calories. It is pretty much the same. We need to figure out what breakdowns we need to collect in order to have useable data. I cannot say this product took us 80 hours to complete. There is no data to dissect, no drill down, so in the end this is worthless. Companies that use a clock in feature for payroll only, with no job costing are in the same boat. There is nothing to dissect for knowledge. If they do not know how much time each department took to finish the project, how are they going to know if the project was done on time, under budget or worse - over budget?

Measuring progress in a custom fabrication company is a must. Plain and simple, you need to have a time tracking system. Your employees need to clock into a project and then into a specific department. This will help them compare the estimate to what their specific work is. As you collect how much time it takes each department to finish their specific objective, you have great data!

Look for a project management system that allows data entry from your team on the production floor.

Pro Tip: If it is a good system, it also shows them how much time was estimated. If the producer of the product ends up taking 12 hours and the estimator only had 10 hours in the project, the system should alert management. This way the estimator can learn from their mistakes and ownership can be made aware.

Material acquisition is part of the recording process. We need to see what the producer is actually using to create the product. Make sure you have a solution in your company to track the material usage. This is one area that is overlooked quite often. The producer of your company needs a place to write down his actual usage. Then it needs to be uploaded into a costing system that will combine all of the items (materials, labor and outsource). Look for a project management system that allows data entry from your team on the production floor. This will help in acquiring real time costing.

I remember talking to an owner and I asked how he was tracking his material usage. He told me that all of the materials were bought specifically for a project and then the guys on the floor would not have to account for it. It was tagged for project X and the costs for this item went directly to the project. I was fearful that he was ordering sheets of material for a project that only needed 1/10th of the ordered item. It would in turn, skew the data. If we go back to our example of mapping our calorie intake, he was counting a whole meal when he only took one bite. I needed to go further down the line and ask the producer of the item what he was actually doing.

When I interviewed the employee on the floor, he was redesigning the project entirely. He was not given the path to success.



Management was not sharing the estimate with the producers on the floor. Since the producers on the floor were not aware of how the project was intended to be built, they used the items that were on the floor at that time. When the sheet came in, it sat in the corner and was never used. They built the product completely different than what the estimator had calculated for. The estimate was worthless and the item was never needed.

This little conversation with two employees ended up revealing a big problem in the organization. The company was not sharing information. They tried to be smarter than the process and in turn hurt the company. The estimator once done with the estimate, would not share it with the team in the back, for fear they would milk the job based on the hours. In turn two people (estimator and producer) were doing the same work twice. They both reviewed the end goal, then built it how they thought it was best. Double work equals lost time and profit. Not only do we need to record progress to compare apples to apples, but we need to give them the path to success so they know what they are doing. Each project had wasted hours figuring out how they would build the custom product.

Outsourced goods are part of the process in the custom world. Special materials from company X needs to be ordered to fulfill the project requirements. A purchase order will need to be created. Purchase orders are used to tell the vendor that they are allowed to start producing the order and incur costs. A PO tells your team the order has been placed and this part of the project has been taken care of. A PO also lets the accounting team know that a bill in the

future is coming. Utilizing a [purchase order](#) system will also help you tally up all of the costs for a project with ease

Time cards, materials and purchase orders will make up the costing of any project. Once all three are gathered and added up, we have our true costs now. We have successfully measured and mapped out the progress on a project.

STEP 7 – COST OUT AND COMPARE

Do you know that more than 50% of the companies that I have coached do not cost out their projects? They skip the most important part of the system. Why? They believe it is too hard to capture all of their costs accurately. They believe that the time it takes to accumulate the paper trail is too difficult and time consuming. The costs outweigh the benefits. I have heard, “We do not have time to cost projects out.” Over and over again. Whatever excuse you are making to not do this final step, it is not a good excuse. I need you to stand in front of a mirror and look yourself in the eye. You need to tell yourself that costing is necessary. Start costing your projects!

The work is done, the project is invoiced, and the costs are being calculated. Now it is time to receive your report card. Before we get into the report card itself, we need to talk about what the report card is. It is the truth behind how well your team did. It is the truth on how well your estimator knows the team and what they can and cannot do. As you line up the estimate next to the actual costs, you are comparing apples to apples. There is no wiggle room or excuses now. The numbers are the numbers and they do not lie.

Your costing sheet should show you the breakdown of each area that we tracked. How much time was in metal dept? How much time was on the router? How much time did we allot for the router

to run? These questions are important. I have found that variance shines light on what we can do to improve our company. What is the variance?

The variance is the difference between estimated and actual. If a department had allotted 10 hours for assembly, and the assembly person took eight hours, there is a variance of two hours. In this case, the variance is in our favor and we captured two hours of time that we did not use. Time is money.

If the project has 100 hours, and one department went over by only one hour, the project will not even feel the loss. If the project is 2 hours, and we went over by one hour, the project will show a large loss. The % variance is what we are after. In the end we want to be inside of 5% variance. That is the goal we are trying to obtain. 5% or less of a variance and your team is doing very well.

“So, we compare the overall numbers and it shows that we are under budget. So what?”. I have been asked this question multiple times and I want to share some insight from this. If you look at the project as a whole and you are under budget, bravo. That is great news. But you might have a problem nonetheless in your company if you are not drilling down to each department.

I had a client who never costed. He said each month he would look at his books and the bank statement and if the number was higher than his previous month, he was making money and there was nothing to worry about. I talked to him and told him if he only looked at the bank statement once a month, then he was really only steering his ship once a month. 12 times a year is not a good frequency to direct your company. I convinced him to start costing and he would report back to me in 2 months once the costing system was put into place.

About two months later, we got onto a conference call and I wanted to see his progress. The costing was in place and data was being inputted and compiled. He had some good projects and some

bad projects (like all of us), but in the end, the bad projects were far and few between and he was aware of all of them. He poked at me and said he knew his company inside and out. No need for costing. I asked him to keep recording. He and I agreed to do it just one more month and then compare notes.

At the end of the third month, I gathered up all of the costing for the three months and proceeded to make a spreadsheet of all of the differences between each department for each project. It was a bit tedious, but in the end, we had a report of all of the projects and the



variances for each department. We uncovered a startling discovery! You have heard this before, but numbers don't lie.

The metal department was under hours for almost every project and the paint department was going over in almost every project. The metal department was saving the company money and the paint department was bleeding on almost every project! Upon uncovering this fact, we went out to the paint dept to talk to the painter and why he was missing the mark on almost every project.

As we walked out to the paint booth, I thought, is the estimator quoting too tight on paint and the painter really needs more time, or is something else going on? Many scenarios filled my head on what could be happening. In the end, the answer was not what I was prepared for.

We talked to the painter and this was the reason. A paint gun was dropped by accident, breaking the paint gun. Due to the painter only having one gun, he had to spend more time cleaning the gun in-between colors, taking more time. He said he was sorry and was saving up to buy a new gun to replace the one he had broken.

While this was admirable for him to replace it, he was unaware of the thousands of dollars this costed the company in lost time. He was not an accountant; he did not fully understand the ramifications of what this lost gun did to the bottom line. His lack of telling the manager that we needed a new paint gun ended up costing the company almost \$2,200.00 in lost production. The new gun would have cost the company \$380.00

While I had a big grin on my face staring at my client, he looks at me, catches my look, and then while standing up tall, he says “I guess beers are on me”.

We uncovered this problem in the company through costing. We were able to make a change in the company that yielded major rewards. This is just one example of how costing is beneficial to the company. Costing is crucial to any business. You need to know where you are spending your money.

Costing analysis is really the art of using the numbers you have, figuring out the variances in the numbers and then deciding how you can improve. My favorite tool that we built in the [SquareCoil](#) system was the costing analysis page. It compares the estimate with the actual and then give you the variance of the two with the click of a button. I did not want to have people waste their time

making spreadsheets. I want them to utilize their time wisely and find a way to improve via the numbers.

I have yet to fathom the reason why it is human nature to not take action once they have uncovered a problem, but it is a big threat to the bottom line. They simply recognize the problem, and then find other things to do. You really need to sit down and do this next part of costing analysis. I want you to ask yourself these questions.

- How do you utilize your time to improve on what your company is doing now?
- Did you meet all of your goals laid out by the estimate?
- Did some of them take longer than expected? If so, why?
- Were there obstacles or distractions that got in the way of the goal?



What could have been done better? What could have been done differently? Was there anything else that could have helped make this goal more successful (e.g., more time/money/resources)? These questions you should ask yourself every time you look at the costing. It is your report card. I hate to say this, but there are no such thing as straight A's. You can get an A on some projects, but there is always room for improvement. You have to be objective and honest with yourself about how things went.

The last question talks about two different scenarios. What is the difference between an obstacle and a distraction? An example of a distraction are the holidays. I love holidays as an employee, but they are an efficiency killer in the workplace. People come back

from a holiday, they want to share what has happened in their life, what parties they went to and what drama unfolded during their time away. They talk at the water cooler for an extended time and the

productivity goes down. You cannot do much about this, but you need to be aware of it.

Obstacles in my mind are easier to fix. Does the person have all the tools they need to be successful? In the example above, the paint department did not have all of the tools needed for success. He needed more equipment to get the job done successfully based on budget. This is an obstacle. These obstacles are sometimes hard to spot, but once removed, the company can move more efficiently.

PRO TIP: Since the holiday / vacation sharing is going to happen regardless, capitalize on it when the team comes back from the holiday party to cultivate the morale in the company. Have a meeting on the first day back to share what the company has done and where it is going, getting your team reengaged. This desire to share will be fulfilled here along with you sharing your vision of where the company is headed.

If you compare the estimate to the cost, looking at one project at a time, you are only doing 1/3 of the work.

During your review of work completed in the month, you will be comparing estimates with actual costs. If you compare the estimate to the cost, looking at one project at a time, you are only doing 1/3 of the work. I want you to compare them three different ways to get the full understanding of how your organization works.

Once the project is complete, I want you to compare apples to apples. In your estimate, you should have broken out the material we thought we were going to use, the labor from each of the

departments, and the buy-outs. Your costs should line up perfectly with this, showing the material you purchased, the labor clocked in, and the purchase orders of the items outsourced. Line these two tables up next to each other. The first thing I want you to look at is the actual material. Did your team use the items that you had called out for in the beginning? If they did not, then you need to go find out why? Possible conclusions –

- The items that they use on a daily basis are not the ones you called out
- The items they used were not on the shelf and they did not want to wait for the shipment
- The call outs on the estimate are incorrect and the manufacturing team caught the error and fixed it on the floor
- Maybe the team did not see the estimate and they re-invented the product on the floor

In each one of these scenarios, no one did anything wrong. They had the best intentions for the company. They moved the project along in a quick manner, the end product looked good, and they are working on the next project. But, finding out why these differences occurred in your company could unveil areas of growth for your company. Each scenario may be a possible solution for more efficient processes.

I worked with a team recently and the estimator would call out a certain style of LEDs. The shop did not use these LEDs, as they liked another style. This clash went on for months. The reason the estimator called out brand X is because he knew he could buy them in bulk and get discounts on the items. The shop liked brand Y better because they were easier to install. In this case, they both had really good intentions. You as an owner need to decide which way is better for your organization. In the above case the owner needs to decide if the purchase savings outweigh the labor savings?

As you review the costing, find these discrepancies and make sure that your estimator and your production team are on the same page. Results of this solution will be the ability to recognize what items your team are using the most and in turn buying those items in bulk. Remember throughout this exercise you are looking for ways to cut costs without giving your client an inferior product.



Reviewing the labor one to one is beneficial to see if your team hit the mark. Sometimes unforeseen circumstances arise during a project that you cannot account for in the estimate and the project profits will suffer because of it. Broken bits on the router, or a bug landing on the material as you apply a coat of paint are circumstances that happen. Some of the many joys of owning a custom manufacturing facility.

Another way to explore your costing is to compare one to many. Review the project costs of one project. Then I compare them to the average of multiple projects of similar nature. How long is it really taking my team? I want to know the average of how long a project takes. If I have been consistently taking 4 hours to make 6 letters, then I know our average time is about 40 min a letter. If I look at the costing for the one project, and they are at 35 min per letter, then they beat my average and I want to know why. How can I get my team to perform at 35 min a letter moving forward and not go back to the old average?

By comparing one project to many projects, I can get a feel for how fast my team is working. Since we are building one off products, I cannot turn my company into a widget factory. I cannot assume everything they do is the exact same and they must

complete it in the same amount of time each time. This line of thinking is unfair to the producers in the shop. I can however put benchmarks to the projects and give them goals to hit. Reviewing one project to many projects when it comes to labor will help find the areas for improvement.

The third way to review your costing is to compare many to many. This style of cost analysis would look like this. You would take the variance of the estimate and the actual for each project in a given time frame. The report would show the variance for each department and for every project. This report is tedious to put together yourself, but it is not hard, and you can glean a lot from this report. A good [software](#) will do this report for you.

When I review the variances for many projects at once, I want to know the overall variance. Did the metal department come under budget for labor for the entire month? I want to see if a specific project skewed the curve, or if we have a habit of beating the estimates. Each answer is buried in the costing analysis.

Let's give a scenario to review. The company had 35 projects in a given month, and 400 hours to complete all of the projects. When the month was complete, the shop took 415 hours. That is a 4% variance. Is there anything to glean from this scenario? I would say that one project might be the culprit and I would look for a one-off project with a high variance vs the others. If so, then I can talk to the team, see how it could have been handled better and then tell my estimator to give a bit more time for future instances of this style of project coming through the shop. If nothing stands out, then I would look to more external factors. Was there a holiday this month? Was someone sick and not running at 100%? You might have to dive deeper into your company to see where the issue lies. If nothing comes up, make a note of this month. When another month resurfaces like this month and you cannot find out what happened to cause the variance, try to compare these two months together. The answer might be uncovered.

Pro Tip: When you review your costs, please take into account the mark up level that your sales rep sold it for. I want you to take into account how much wiggle room the sales rep gave you. What I mean is, did they ask for enough margin, so when the project has a hiccup, it did not eat the entire profits of the company. I always want every owner to pay attention to this fact. Projects do not always go according to plan. Mistakes and misunderstandings happen. Once you have your costs dialed in, make sure the margins you ask for are just a bit higher than what you really want. This way when something does arise, the ripple effects to the bottom line are easier to manage.

Costing is a key component of business management. With costing done correctly, it will be used to determine what bids to accept and which ones to reject in the future.



Conclusion

You can build a strong company that excels against the competition. All of the information you need to grow and scale your company is inside of your four walls. Instead of learning theory at a school, you are learning from your progress and making adjustments.

Think about Henry Ford and how he perfected the automobile. He came out with a design for the car. He designed the doors, seats,

ergonomics and the engine. Then put the car into production, building each of these items and assembling the car. Figuring out what bolts would hold the car together as it rattled down the road. Then Ford reviewed how the car did. If a part was not up to quality standards, he would change that part out, so the next round of cars would not have this issue. Each year Ford would come out with a new model. It fixed all of the issues with the last car and then offered a new feature that was not offered before through innovation.

This business model is what custom manufacturing facilities are still using today. You are learning from our mistakes, capitalizing on our successes and ensuring our company's future. Learning from your past decisions is one of the greatest ways grow and scale your company. I have given you multiple examples of how this 7-step process will make your company better than what it was yesterday.

This process does not happen overnight. Building a [framework](#) for your company and how you want to organize your company takes mental willpower and mental fortitude that you have in you. You have decided to pick up this book and read it. You are in the right frame of mind to learn. You are a sponge, soaking in all of the information necessary to catapult your company into the next level.

As the owner, it is your responsibility and duty to cost out your projects and learn from the information. Your team is counting on you to lead them. You need to be the visionary of your company. You can only make money two ways. You can ask for more money up front when you are making the sale. Showing the client how your value-added process is worth more to them. The other way to make money is to meet or beat the budget. We want to beat the budget each and every time. Beating the budget means putting more money back into our pocket. We beat the budget by reviewing the costing and then changing little things in your company. The constant improving will not only uncover ways to do things better, but it will also empower your men to look for ways to excel.

I want you to picture in your mind what your company will look like if every employee was on a mission to find ways to build a better product. To look for ways to streamline the operations.

Each company that is alive and breathing now are in one of these categories. They are growing and scaling, maintaining or they are slowly dissolving. If you are not maintaining and not growing, then really, you are dissolving. Think about it, if you are just maintaining and your competitor is growing, then proportionately your market share is shrinking. In the end you are either growing or you are shrinking. Now is the time to take action. You don't want to look back on this time a year from now and wished you had done it. Every client that has delayed, always regrets not starting sooner. I always hear, I wish I would have done this years ago. No one can make you do it. So, let's get started; we are here to help.



These 7 steps are built into SquareCoil Software. SquareCoil is not just a software, it is a lifestyle for the entrepreneur. It helps organize, keeps you current of project process and gives the data to lead. The time and money saved will be astounding. We encourage you to check out the next evolution in the custom fabrication industry.

www.SQUARECOIL.com

Do you want to be a part of something bigger? SquareCoil is not just a software; we are bringing together a large community of like-minded people, who all want to better themselves and their companies. We are who we surround ourself with. Surround yourself with positive, successful, knowledgeable owners that you can reach out to as a resource to help you reach your goals. Join us on the SquareCoil Community on Facebook.

Sincerely,

Aaron Clippinger

Aaron Clippinger has taken the business process and simplified it. His method has been proven over and over again with hundreds of companies adding to their bottomline. His company, SquareCoil Software, tackles these 7 steps and streamlines the process even more. With over a billion dollars running through the software annually, he has shaped the future of the Custom Manufacturing Industry.

The book, the podcast and Aaron's speaking engagements all center around one philosophy. Minimizing your efforts for your maximum efficiency.

THE INFRASTRUCTURE Booklet

7 STEPS TO ADVANCE YOUR BUSINESS

AARON CLIPPINGER