

YOUR BUSINESS IS A BIG EXPERIMENT

Identify the Key Performance Indicators
that prove your business hypothesis.

Bob Ross
Certified Professional
Business Coach



YOUR BUSINESS IS A BIG EXPERIMENT

If you think about it, your business is really just a big experiment. It is essentially a hypothesis, a testable hypothesis.

When you first launched or bought your company, you announced to the world (and investors), "If I do these things, customers will love me, and I will make a ton of money." You likely spelled out many of those activities in your business plan.

While you likely did not think of it in these terms, you hypothesized how to profitably solve a problem or meet a market need. The solution to the problem out there is...Your Business.

Set Up An Experiment

With apologies to my dad, the chemist, the way to prove or disprove a hypothesis is to set up an experiment.

Your business plan probably highlights many of the activities your company will perform. It outlines marketing and sales activities and how you will make your product and deliver it. By writing your business plan, you designed an experiment to test that hypothesis.

Each day, through your business operations, you are conducting that experiment. However, this is not to say that you will see the results daily. More likely, the experiment needs time to play out. You told your investors as much when you set forth your three- or five-year plan.



HOW WILL YOU KNOW IF “IT” WORKED?

Part of setting up an experiment is spelling out how you know whether "it" worked or not.

“ *The first principle is that you must not fool yourself and you are the easiest person to fool.* ”

- Richard Feynman

How will you know if your experiment worked?

How will you know if you performed it correctly?

It might have been that your team was careless in setting all the dials and levers. On the other hand, they might have had everything arranged "just so," but something else happened.

Your experiment might have worked beautifully for all the right reasons, and your business plan is validated. But, you should also know whether your experiment worked in some part due to luck.



You can gain valuable information in any of these cases. Make sure you create a plan to get that information! It is far better to begin your business with objective measurements already identified.

You risk deluding yourself if you don't identify the most relevant measures now. You might either concoct a measure that is easy to capture (i.e., canned reports in your CRM software). Or you might subconsciously protect your self-image by choosing metrics that paint a rosy picture. Such measures might be irrelevant to managing the business. Better to lock down the relevant measures now.

SOME USEFUL FRAMEWORKS

While necessary, financial measures do not tell the whole story. You must look at operational measures as well.

Financial measures provide excellent information about how the business is doing. Cash flow is the ultimate measure. After all, your business plan identified cash flow targets at the outset. While necessary, financial measures do not tell the whole story. You must look at operational measures as well. Imagine the manager who has cost targets but no quality or service guardrails.

Here are a few frameworks to help you identify the most relevant operational measures.

This SlideDoc focuses mainly on non-financial metrics.

Inputs-Process-Outputs

You can use a simple Inputs-Process-Outputs analysis to identify the critical levers at a high level.

SIPOC

SIPOC extends the framework in both directions by also considering the suppliers and customers of the process.

Value Delivery System

The Value Delivery System (VDS) framework provides the most comprehensive way to identify the most relevant measures for a business.

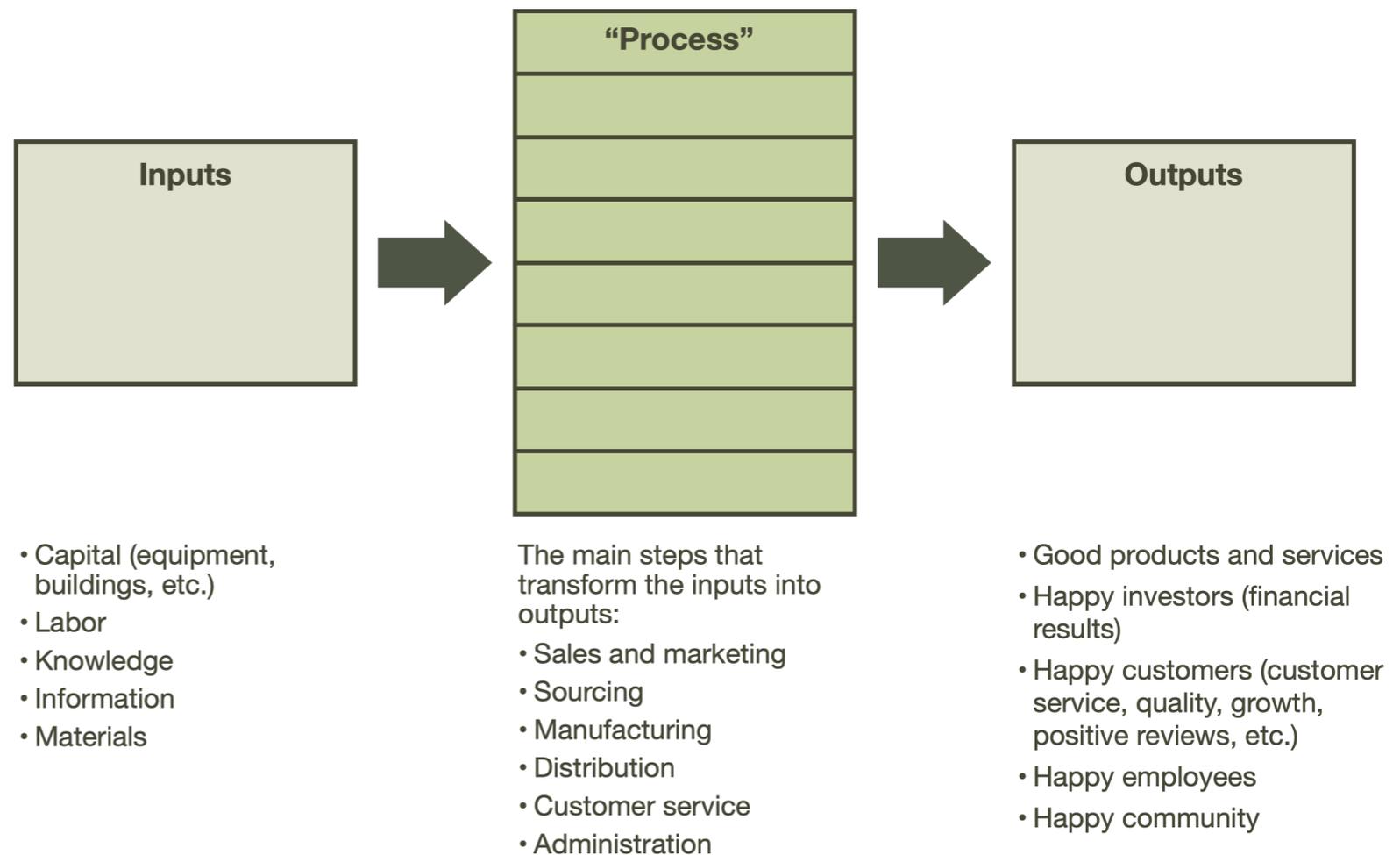
INPUTS - PROCESS - OUTPUTS

You can use a simple Inputs-Process-Outputs analysis to identify the critical levers at a high level.

You have like seen charts like this many times before. This is a great way to frame a process, even a process as big as a business.

Identify the inputs to "the experiment" and spell out "the experiment" itself. This can be powerfully diagnostic, too. "If we aren't getting the financial and growth results (outputs) we wanted, is it because something is deficient in our inputs or processes?"

This image offers some broad categories of inputs, processes, and outputs. Think through the specific categories and sub-categories which are relevant to your business.



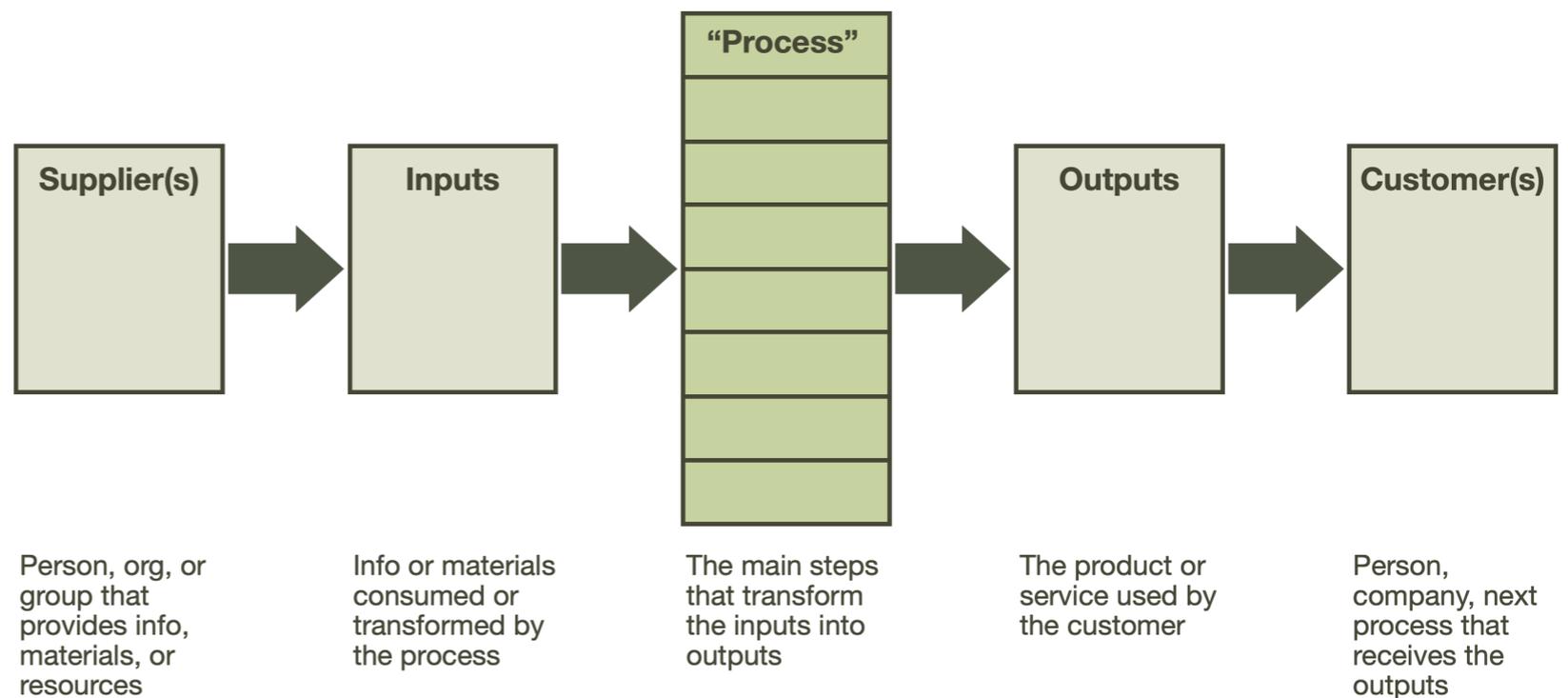
SIPOC

Extend the Input-Process-Output framework in both directions by including suppliers and customers.

SIPOC extends the framework in both directions by also considering the suppliers and customers of the process. SIPOC reminds folks that even internal customers are customers. Everybody has customers!

By considering suppliers, you naturally ask things like whether you have the right suppliers.

By including customers, you make clear to everyone who the customers are. You'd be amazed how often companies have a mismatch between their customers and the ways they've organized themselves to support those customers.

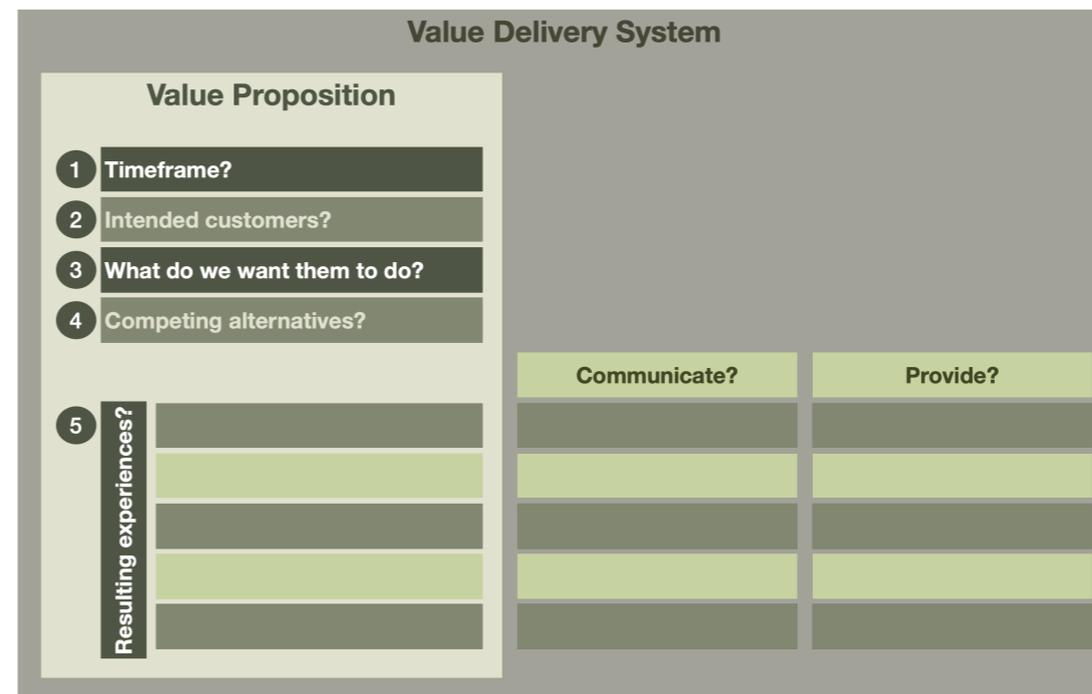


VALUE DELIVERY SYSTEM

The Value Delivery System framework is the best, most-comprehensive way for small business owners to think about their businesses.

Michael Lanning, author of *Delivering Profitable Value*, first coined the phrases value proposition and value delivery system. I had the opportunity to work with Michael while he was on a consulting engagement for Lithonia Lighting. I have come to believe that his framework is the best way for small business owners to think about their businesses.

Quickly, a value proposition answers five specific questions about who our intended customers, their alternatives, and what we plan to do for them. The fifth question seeks to clarify what experiences we wish our intended customers to have as a result of working with us (buying our product, etc.). Lanning calls these "resulting experiences," and they are the foundation of the value proposition.



Once we have clearly described these resulting experiences, we turn our attention to determining how we will communicate and provide these experiences. These activities are our company's Value Delivery System.

What else is there to "business" besides communicating and providing experiences to our intended customers when you think about it? What else does one need in a business plan, or even a "strategy?"

To learn more, please email me for a free copy of our Value Delivery System workbook.

BRAINSTORMING TOOLS

These brainstorming tools can help you to further identify the relevant metrics for your business.

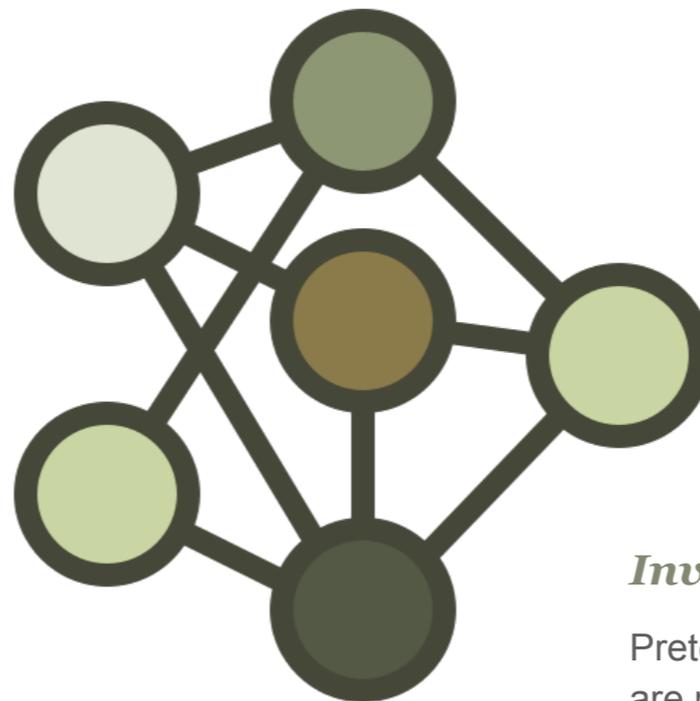
Here are a few of many brainstorming techniques. I do not intend you to go through each of these in a linear, sequential fashion. Just as the creative process is inherently non-linear, you can use these ideas simultaneously and in any order that seems helpful to you.

Storyboard

Sketch out a data slide by visualizing what the data in question might look like.

Critical to Quality

Critical to Quality (CTQ) looks at quality from the customer's point of view. This tool seeks to determine what is not just important but critical in the customer's mind to your product's quality, usefulness, and value.



Quarterly Operations Review

Imagine that you will preside over a quarterly operations review meeting, where all of your lieutenants present to you how things are going in their particular area.

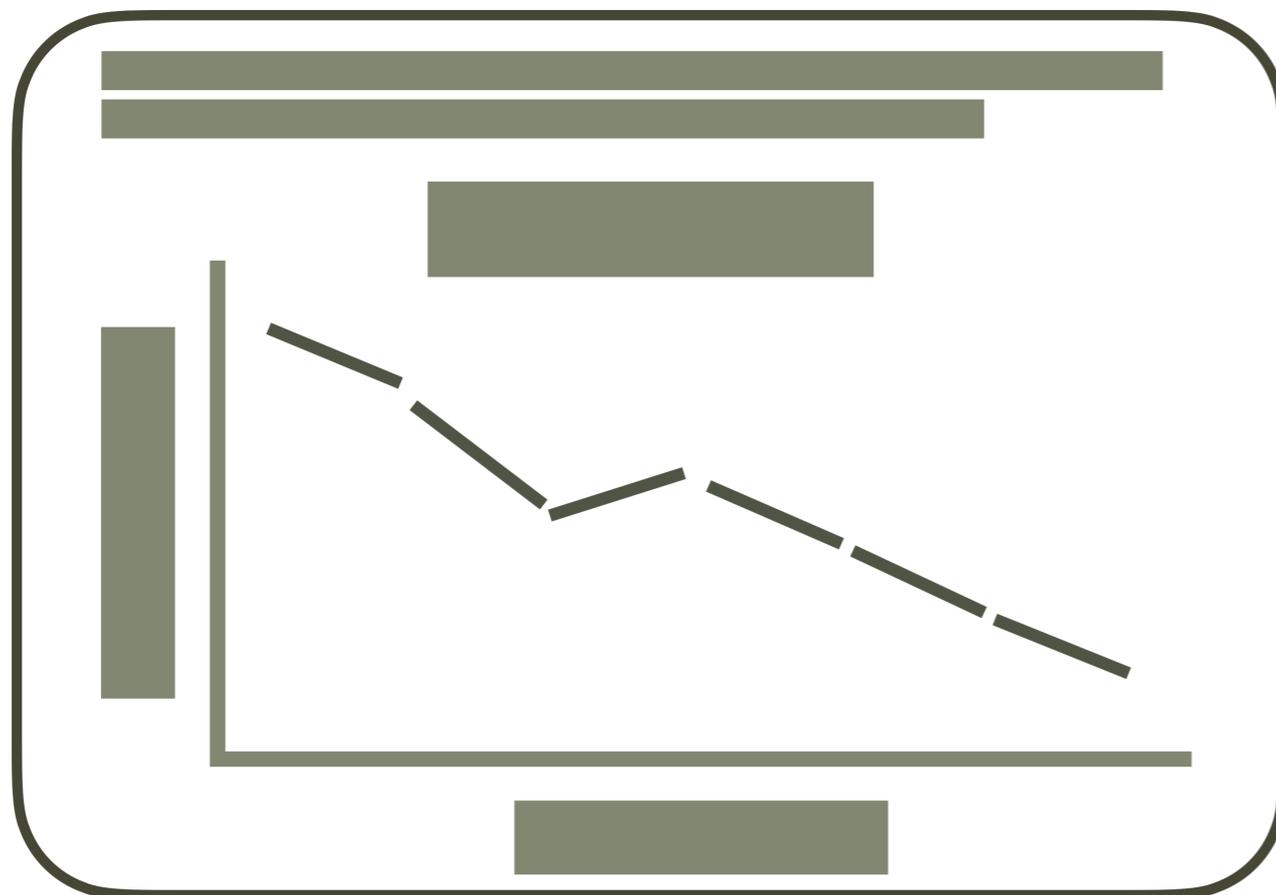
Investor Meeting

Pretend the tables have turned and that you are presenting to shareholders or lenders.

STORYBOARD

Sketch out a data slide by visualizing what the data in question might look like.

As Steven Covey says, "begin with the end in mind." Before you sit down to create a presentation of any type, experts recommend sketching your slides on paper or sticky notes. For the task of displaying data, I recommend sketching slides, paying particular attention to these specific elements.



Tagline

Include a complete subject-predicate sentence that leaves no ambiguity about the essence of your point. Since this is a brainstorming exercise, use descriptive, future-oriented language in a way that would validate some portion of your hypothesis.

Chart Title

Factual and neutral, the chart title should convey what, how, and when the measurement happened.

Sketched Data

Imagine just the right data, displayed in just the right way (line, bar, stacked 100% bar, scatterplot, etc.) and showing the magnitude or trend your company needs in order to be healthy.

Horizontal (X) and Vertical (Y) Axes Labels

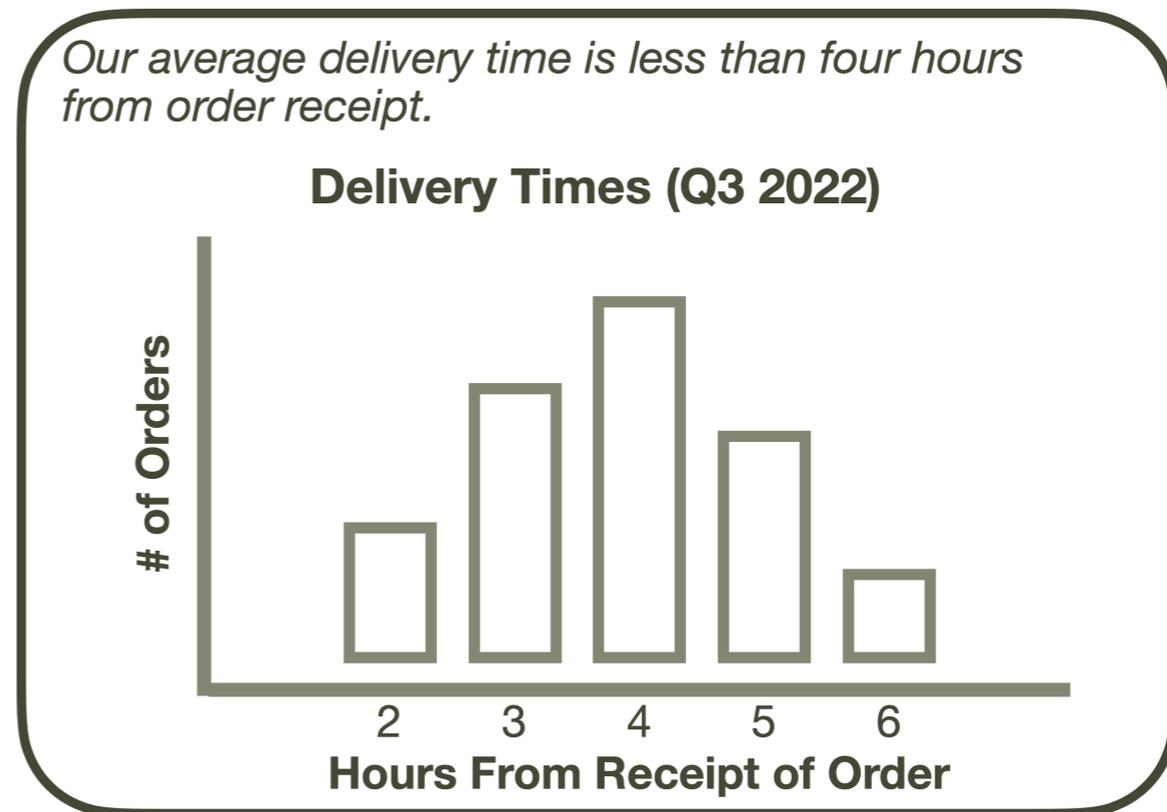
Getting the labels right is critical to capturing the right data.

STORYBOARD, CONTINUED

The magic of sketching slides is that it forces you to describe the thing to be measured in measurable terms.

Suppose your customers require (and your company seeks to deliver) your product exceptionally fast. Your tagline might read, "We have an average Time to Delivery of fewer than 4 hours from order receipt." At this point, you have even set a goal for the metric! The beauty of the tagline, in the case of key performance indicators, is that it comes straight from your value delivery system or business plan.

So, you might sketch a slide with the above tagline and a histogram that imagines a very tight spread of delivery times. The vertical (Y) axis label might be "# of orders." The horizontal (X) axis label would be "Delivery Time" with buckets of possible delivery times (e.g., 0-1 hour, 1 - 2 hours, 2 - 3 hours, 3 - 4 hours, 4 - 5 hours, etc.). Keep in mind that there is no actual data yet. Just sketch what you want the data to look like to support your tagline and your overall business hypothesis.



*Don't get too hung up just yet on the data you need or whether it is even available.
We will get to that later when we develop your data collection plan.*

CRITICAL TO QUALITY, PAGE 1 OF 3

This tool seeks to determine what is not just important but critical in the customer's mind to your product's quality, usefulness, and value.

Critical to Quality (CTQ) looks at quality from the customer's point of view. Suppose you have followed the entire methodology for creating a defensible value delivery system. In that case, you will naturally have a good idea of what problem the customer is trying to solve and what is important to him.

Short of that, however, you must rely on your intuition, hard data (warranty requests, complaints, and returns), and qualitative methods like surveys and questionnaires to get a complete picture of what is critical to the customer.

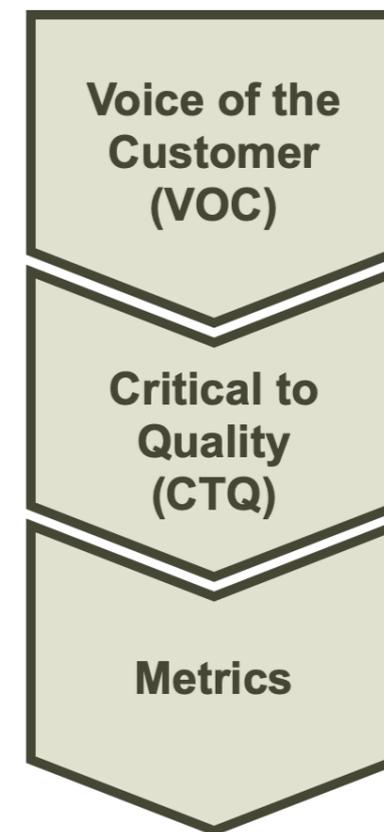
Armed with the voice of the customer information:

- the qualitative statements from surveys, questionnaires, and complaint cards, or
- the qualitative experiences you are trying to deliver via your value delivery system

you can *infer* the aspects of your product or service which are critical to quality.

At this point, you can use a little critical thinking and little creativity to translate the CTQs into relevant metrics.

Review some examples in the tables on the following pages.



CRITICAL TO QUALITY, PAGE 2 OF 3

Armed with Voice of the Customer information, you can infer the aspects of your product or service which are critical to quality.

<i>What the customer said...</i>	<i>The CTQ might be...</i>
<i>When we entered the store, the clerk didn't even acknowledge us and never offered to help when we tried to reach an item on the top shelf.</i>	I want to be acknowledged. I want their shelves arranged so I can easily reach things.
<i>Every time I call the help desk, I have to speak with 4 people before I reach someone who can really help me.</i>	I want help from the first person I speak with.
<i>I entered my account number twice through the keypad, why did the 'real person' I finally got to speak to ask me for the number again?</i>	I should only have to enter my number once.
<i>I really like the new car I purchased, but I had a really hard time getting the salesperson to wait on me. It seemed like they thought I looked to young to really be able to buy my own car.</i>	I want to be addressed as soon as I arrive. (The other stuff, the perceptions, wouldn't have even come into play had the customer been waited on quickly)
<i>The store aisles were so crowded, we couldn't really move between the racks to even look at the clothes.</i>	There should be ample room to browse the store comfortably.
<i>That restaurant used to be really great, but the last two times we've eaten there, our food has been cold when they served it to us.</i>	Food intended to be hot needs to be hot
<i>Our last team meeting was a total waste of time. No one seemed to know why we were there and I don't think we accomplished anything.</i>	I want meetings to be a good use of my time. I want to leave meetings having accomplished something.
<i>I wish I could recommend my doctor to you, but I'd hate to send you there just to sit in their waiting room. I waited more than an our for my appointment.</i>	I want to meet with the doctor at my appointment time.
<i>It's great that the bookstore offers to order the book for me, but I really wish they just stocked more books. I don't want to make another trip.</i>	I want a larger selection of books at the store.
<i>I tried to register for the new course online, but I couldn't find the registration link.</i>	I want the registration process to be simple. I want easy (intuitive) website navigation.

CRITICAL TO QUALITY, PAGE 3 OF 3

Use a little creative thinking and creativity to translate each CTQ to an appropriate measure.

<i>What the customer said...</i>	<i>The CTQ might be...</i>	<i>An appropriate metric might be...</i>
<i>When we entered the store, the clerk didn't even acknowledge us and never offered to help when we tried to reach an item on the top shelf.</i>	I want to be acknowledged. I want their shelves arranged so I can easily reach things.	Acknowledgement time Height of highest item in store
<i>Every time I call the help desk, I have to speak with 4 people before I reach someone who can really help me.</i>	I want help from the first person I speak with.	Avg. number of times calls get forwarded per call
<i>I entered my account number twice through the keypad, why did the 'real person' I finally got to speak to ask me for the number again?</i>	I should only have to enter my number once.	Avg. number of times a caller enters number before speaking with a live representative
<i>I really like the new car I purchased, but I had a really hard time getting the salesperson to wait on me. It seemed like they thought I looked to young to really be able to buy my own car.</i>	I want to be addressed as soon as I arrive. (The other stuff, the perceptions, wouldn't have even come into play had the customer been waited on quickly)	Acknowledgement time
<i>The store aisles were so crowded, we couldn't really move between the racks to even look at the clothes.</i>	There should be ample room to browse the store comfortably.	Width of most narrow aisle in store Number of complaints mention this
<i>That restaurant used to be really great, but the last two times we've eaten there, our food has been cold when they served it to us.</i>	Food intended to be hot needs to be hot	Time elapsed from order completion to order served (Time elapsed when order is placed on the counter)
<i>Our last team meeting was a total waste of time. No one seemed to know why we were there and I don't think we accomplished anything.</i>	I want meetings to be a good use of my time. I want to leave meetings having accomplished something.	Survey: % of meetings with a stated objective Survey: % of attendees who perceive meeting achieved the stated objective
<i>I wish I could recommend my doctor to you, but I'd hate to send you there just to sit in their waiting room. I waited more than an our for my appointment.</i>	I want to meet with the doctor at my appointment time.	Callback compliance: time stamp when patient was called back by nurse compared to appointment time Doctor compliance time: when doctor enters exam room compared to appointment time
<i>It's great that the bookstore offers to order the book for me, but I really wish they just stocked more books. I don't want to make another trip.</i>	I want a larger selection of books at the store.	% of "off the shelf" transactions % of "special orders"
<i>I tried to register for the new course online, but I couldn't find the registration link.</i>	I want the registration process to be simple. I want easy (intuitive) website navigation.	Survey: average "simplicity" or "intuitiveness" score on a 1-10 scale

QUARTERLY OPERATIONS REVIEW

Imagine that you will preside over a quarterly operations review meeting, where all of your lieutenants present to you how things are going.

“ *If a business is really a decision factory, then the presentations that inform those decisions determine their quality.* ”

- Marty Neumeier

Left to their own devices, your direct reports will naturally want to show you things that cast them in a positive light. You can inoculate yourself from "the spin" by telling them beforehand what information you want to see.

Further, imagine that this meeting happens once a quarter. It is integral to the management and accountability within the company. It is part of the rhythm, the cadence, the heartbeat of the company.

What information will you want to see from your lieutenants each and every quarter?



INVESTOR MEETING

Pretend the tables have turned and that you are presenting to shareholders or lenders.

Your investors will want to have periodic check ins with them so that you can let them know how things are going. Of course, you will naturally need to present financial information. But, as we mentioned earlier, financial data needs to be balanced with operational metrics.



What information will your investors wish to see every quarter?

What information would give investors solace that the business is working and their investment is sound?

SAMPLE METRICS FOR A VALUE DELIVERY SYSTEM

If you have a fully fleshed-out value proposition and value delivery system, determine one or two measures for each box in your VDS.

Suppose one of the ways you choose to provide an experience is through a product you manufacture and sell to the customer. You might implement a qualitative survey of recent purchasers to determine if the product meets expectations. Additionally, "Customer Returns" could point to possible issues with manufacturing, quality, logistics, and even expectation-setting during the selling process.

Here is a table to get you started.

<i>If you plan to provide an experience via:</i>	<i>Measure it using:</i>
A product	Qualitative satisfaction surveys, quality measures such as returns, defects, and repeat purchases
A service	Qualitative satisfaction surveys, contract renewals, contract cancellations, "do-over" service calls, installation time
Packaging	Damaged shipments, qualitative surveys
A service that maintains a product	% Uptime, call volume, first-call resolution
A customer training program	Technical support call volume, qualitative surveys
An instruction manual	Technical support call volume, qualitative surveys
An order fulfillment process	Time elapsed from order placed to order shipped, % missing or wrong
A distribution network	Time elapsed from order shipped to customer receipt, damaged shipments

CREATE YOUR DATA COLLECTION PLAN

A solid data collection plan will ensure everyone clearly understands the required data.

Consider how you will capture the data required to calculate each metric. A solid data collection plan will ensure everyone understands the required data clearly. It will:

- Set forth the definition of the data
- Outline who will collect the data and the frequency to collect it
- Identify the source of data for each metric

To create your data collection plan, begin with the end in mind. Envision an input-process-output scheme for reporting your KPIs, except in reverse.

Working backward from the information you need and how to calculate it will help you identify the data required. This can, in turn, help you determine your software requirements to run the business.

If the software doesn't capture the relevant data for the metrics you deem important, you should keep shopping. Carefully scrutinize the software's "canned" reports.

Be wary of snazzy reports that don't provide you with the necessary information. As with everything, however, there will be software and reporting trade-offs. Make those trade-offs judiciously.

CREATE YOUR DATA COLLECTION PLAN, CONTINUED

To create your data collection plan, begin with the end in mind. Envision an input-process-output scheme for reporting your KPIs, except in reverse.



Inputs (sources of information)

What are the sources of data? Possible sources include:

- the results of market research,
- customer surveys,
- financial information (usually at the transactional level),
- customer relationship management (CRM) systems,
- production systems,
- shipping systems,
- Human resources data and
- customer service transactions.

Process (how to calculate)

What is the calculation for the measure to be reported?

Will you report raw numbers, percentages or ratios?

The percentage of _____ that did _____ within _____ timeframe.

Get painstakingly specific here.

Most businesses express at least some measures as a ratio. Turnover (velocity) measures and efficiency (widgets per day) measures are common.

Outputs (the end in mind)

How will each measure be reported?

Numbers typed?

Charts?

What kind of chart?

Here, the storyboarding concept introduced previously can be powerful.

DATA COLLECTION PLAN SAMPLE TEMPLATE

For Each Measure:				
Name of Measure	Definition (Calculation)	Data Source(s)	Person Responsible For Reporting	Frequency <i>(Daily, Weekly, Monthly, etc.)</i>

THE MORE, THE BETTER?

As you identify the relevant metrics, ask yourself if each measure is a "the more, the better" or a "healthy balance" thing.

As you identify the relevant metrics, ask yourself if each measure is a "the more, the better" or a "healthy balance" thing.

What might be a counterweight if it is a "healthy balance" measure? For example, there is a clear trade-off between cost and service level.

Similarly, you might initially say that "sales" is a "the more, the better" measure. However, if sales take off like a rocket, but you don't yet have the necessary team, processes, or infrastructure to support that demand, your service levels (and your company's credibility) will suffer.

Ask what can happen if you try to maximize a measure to the fullest extent possible. Will the wheels begin to fall off the wagon?

Further, with "healthy balance" metrics, consider the guardrails (the minimum and maximum range.)

Cost is an obvious counterweight to improving service levels. After all, nothing is free. Are there other types of counterweights or trade-offs in your company? Headcount? Complexity? Size of your target market?

The image to the right shows that costs always seem to go up exponentially as you seek to achieve perfection.



Is perfection even attainable? At what cost?

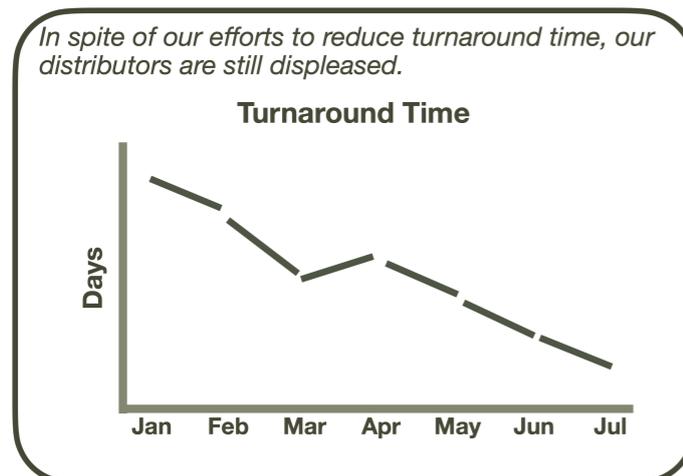
A NOTE ON AVERAGES

A measure's average (mean) can mask the variability.

Averages are simple to calculate and chart as line charts. However, any measure's mean (average) can mask the variability. A simple line chart with a trend line of the average can be telling. On the other hand, a histogram of that data can highlight wide distributions and extreme outliers.

In *Delivering Profitable Value*, Michael Lanning provides a story where Hewlett-Packard constructed a delivery metric called Turnaround Time. It was the average (mean) time it took to ship an order. HP improved Turnaround Time, but distributors were still displeased.

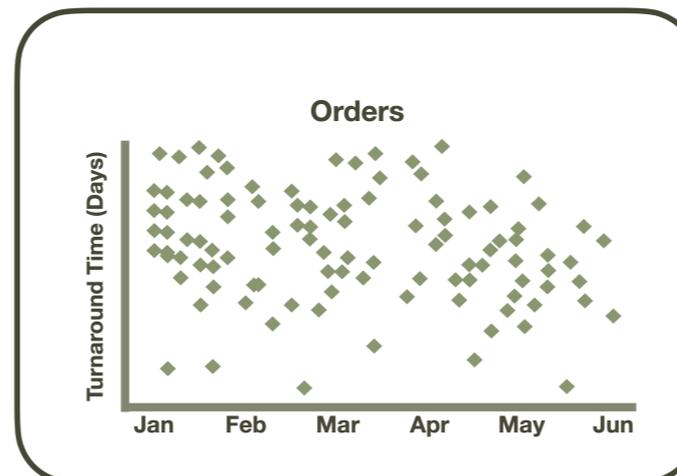
The metric HP was using...



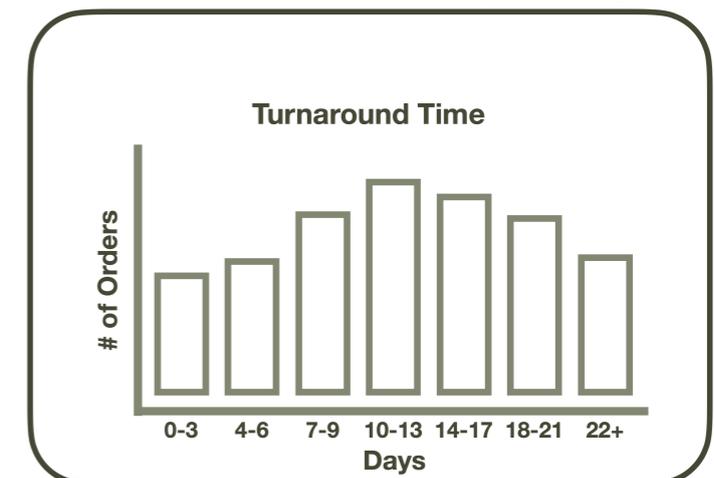
HP discovered that its distributors were not concerned with turnaround time, per se. They were worried about HP's **variability** in turnaround time. This variability triggered distributors to order too much, too early, and then return the unwanted product. You can imagine this excessive ordering caused a self-fulfilling prophecy, worsening turnaround time.

Sure, any distributor, if asked, will say they want **faster** turnaround time. But, what they really needed in this case was **dependable** shipments.

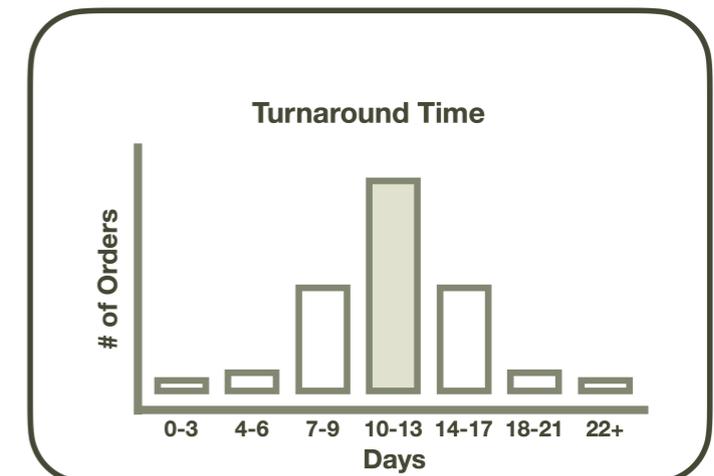
...masked the variability of the turnaround time of individual orders



What the distributors were experiencing...



... but what they really wanted



SUMMARY

“ If you haven’t quantified your business, you’re not objective about it. You’re seeing it through a distorted lens no matter how objective you try to be. Without quantification, you make judgments bases on what you personally see and hear, and that’s both limiting and biased. ”

- Michael E. Gerber
E-Myth Mastery

I have compared a business to a science experiment throughout this document. By launching your business, you essentially set up a big experiment to prove your idea (your hypothesis). You essentially told the world “*I believe that, if we do these things, sell these products, and take care of our customers, we will be successful.*”

As with any experiment, you must know whether it worked, and if not, why it didn’t work. Part of setting up your *business experiment* is knowing what factors to change and act upon.

This way, you can tinker with your model, try again, and never, ever give up until you have achieved success.

Happy experimenting in the laboratory otherwise known as your business!

AN ENTREPRENEUR'S PLEDGE

“I believe that this [business plan or value delivery system or hypothesis] captures the best alternative AND I commit to taking the actions spelled out in this hypothesis. This is a science experiment. IF I do these things, THEN _____ will result. I will determine whether I did indeed do these things. If I did not, then I have no one to blame by myself. If I did do these things, and it did not work out, I commit to understanding why it didn't work out and to creating and executing a new plan.”

“ If the first plan which you adopt does not work successfully, replace it with a new plan. If this new plan fails to work, replace it, in turn, with still another, and so on, until you find a plan which DOES WORK. ”

- Napoleon Hill

ABOUT BOB

Bob Ross of Highland Ross serves as an executive and business coach, working with business owners and leaders who are stuck in some aspect of their businesses.

Through his professional career in corporate America, small business America, and in the community, Bob has come to believe that our community is stronger when its local businesses are anchored with good leaders. The businesses themselves are stronger. Their employees feel safe and secure in their roles in their companies. Business owners' relationships with their spouses and significant others are stronger when they are good leaders. Their children are stronger and more resilient. All of this positivity sends positive ripples throughout the community in many ways, shapes, and forms.

Highland Ross exists to help, to coach, to enable, to challenge our local business owners to be everything their significant others, their children, their employees, and their community need them to be.

Bob is married to Dixie, Director of Campus Financial Services at WFU, and has three spirited, active kids. Two are out of the nest and their youngest is a senior in college. All have been active in the community, the church, and sports.



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