

BUTTERFLY EFFECT FOR BUSINESS

How small changes can lead to big profits

Ash Navabi
Raul Basaraba

TABLE OF CONTENTS

Introduction	i
Part 1	
Chapter 1 Three Simple Lessons from Economics.....	2
Chapter 2 Some Famous Case Studies.....	6
Part 2	
Chapter 3 Framing Effects.....	12
Chapter 4 Endowment Effects.....	19
Chapter 5 Availability Effects.....	22
Chapter 6 Certainty Effects	25
Chapter 7 Emotional Effects.....	28
What this book was about.....	32

INTRODUCTION

*What this book is about, who it's for,
and how to read this book*

What this book is about

A “butterfly effect” is any small change that leads to big consequences: the idiom goes, “a butterfly flapping its wings causes a hurricane on the other side of the world.”

Over the last twenty years, we have seen the rise of a new science called “behavioral economics.”

When most people hear the word “economics”, their eyes glaze over. They might think of guys in suits talking about unemployment on the news, or a boring professor drawing supply and demand graphs.

This book promises to be unlike what your professors or the fast-talking TV fat cats you imagine.

This book promises results.

Now, what exactly is behavioral economics?

Basically, it’s the science *what influences how people perceive value.*

Will this book be useful to you?

Well, do you think you’re providing a valuable good or service to your customers?

Guess what: if customers aren't buying what you're selling, it's simply because they don't *think* about your business as being *valuable to them*.

But here's some good news: you can change people's minds.

And here's even better news: changing people's minds doesn't have to cost you a single penny *you weren't going to spend anyway*.

What exactly does that mean? We'll explain more in Part 1.

Here's a simple chart to explain the goal of this book.

	Small payoff (ineffective)	Large payoff (effective)
Cheap to implement	Most small business marketing (e.g., Direct mail brochures)	Butterfly effect (Where this book will help)
Expensive to implement	Major corporate advertising flops (e.g., "New Coke", box office bombs)	Major corporate advertising successes (e.g., Old Spice Super Bowl ads)

Who this book is for

If you're a business owner that has ever been frustrated with the lack of results after spending hundreds or thousands of dollars on advertising, this book is for you.

If you've never spent a penny on advertising because you're skeptical of getting any money back, this book is for you.

If you like getting the most bang for your buck in your business, this book is for you.

In short, this book is for any business owner that wants to grow their business but does not have the time or money to invest in risky, expensive ad campaigns.

This book contains proven techniques, backed by science, to make sure that people realize what kind of value you can provide them.

This book is *not* an introductory book on marketing. If you want some basic marketing information, like how to set up an email list, or organize a brochure, or optimizing price points, this book is not for you.

This book is independent of any other marketing knowledge you may have. Some of it might be complementary, some might be contradictory, but all of it should be new.

How to read this book

This book is like a manual, not a novel. There is no “overarching narrative.” Don’t feel compelled to read it cover to cover. Jump around.

But if you’ve never heard of behavioral economics, then you should definitely check out Part 1.

What this book teaches you, most of all, is a new way of looking at the world. You will see opportunities where you’ve never seen them before.

But that takes practice. For more information, including a blog with new nudges every week, check out <http://butterflyprofits.com>.

PART 1

HOW TO THINK ABOUT BECOMING INSTANTLY PROFITABLE

CHAPTER 1

Three Lessons from Economics

Economics is a science, and as such has many “laws” and “principles” that are relevant and informative for any entrepreneur. A lot of people intuitively understand these laws as “common sense.”

But as the old saying goes, “common sense ain’t so common.” So while these three lessons may seem like common sense to you, maybe you’ve never thought about them in this context before:

*The first lesson is **Opportunity costs**: whenever you do something, there is something else you could have done instead.*

Another way to think about opportunity costs is “the seen and the unseen.” Consider this short story about a broken window.

A menace to society hurls a rock through the storefront window of a local business. The owner runs out after him, but the boy has gotten away. And so, the owner is left with paying for the broken window himself.

One way to analyze the situation is this: while it's a shame that the menace got away, the broken window is, in fact, a blessing to local business. Because it costs (say) \$1000 to replace the window, the glazier now has more money to pay his workers. His workers then have more money to spend at other businesses. Those businesses then will have more income to spend elsewhere, and so on.

The menace seems to have been an angel in disguise for local businesses. Or so it would seem to someone who didn't understand the concept of opportunity cost.

After all, the \$1000 didn't appear out of thin air. It came out of the shop owner's savings. He might have been saving that money for a new suit. Then the tailor would have been the beneficiary of the money, and all the good things that happened above would have happened in only a slightly different manner.

The only difference is this: in the first scenario with the hoodlum, the shop owner has spent \$1000 and is left with

only a window. But in the second scenario, he spent the same money and had a window *and* a suit.

Thus, the opportunity cost of the broken window was a new suit. The economy is one suit *poorer* than it otherwise would be.

You can apply this principle to any business decision. If you spend \$1000 on a newspaper ad campaign, the *opportunity cost* is what you would have spent that money on instead. This is a hard game to play, but it's not impossible. You can train to be good at it.

*The second lesson for having a successful business is recognizing another simple truth: **Every business decision will either affect total revenues, or total costs, or both.***

While there is some use in hyper-analyzing all transactions and determining unit costs, it's much better to think of your business decisions in terms of whether they will either (1) increase *total* revenues, and/or (2) decrease *total* costs.

Example: what is the "profit margin" for the Victoria's Secret selling a diamond-studded bra for a million dollars- even though no one will ever buy it?

Some math whiz might give you a number, but you don't need a Ph.D. in numerology to figure out that the

diamond bra is just a marketing ploy. It's to get people googling "victorias secret bra" and then buying other things from their store.

In other words, it's just a cost of doing business. The only way to judge *any* cost is by how much revenue it's going to bring in.

The third and final lesson is the 80/20 principle. In general, at least **80% of outputs is caused by 20% of inputs.**

Don't take the numbers too literally. The point is that the vast majority of whatever you care about is being provided by a small number of whatever it is that's causing it.

We bet if you looked at it, at least 80% of your sales are provided by 20% of your customers; at least 80% of the complaints are directed at 20% of your staff; and at least 80% of your time is sucked up by 20% of the things you're supposed to be doing.

Once you identify these efficiencies or inefficiencies, you can work towards changing them to favor you.

CHAPTER 2

Some Famous Case Studies

From our second lesson above (that *every* business decision affects total revenues, total costs, or both), we can do away with lingo like “marketing decisions,” “sales decisions,” “staff decisions,” and so on. Instead, we refer to everything as a business decision.

In terms of costs (and *all* business decisions have costs-see the first lesson about opportunity costs), a business decision is either cheap to implement, or expensive to implement.

Another aspect about business decisions: they either have a small payoff (meaning they don’t affect your total profits very much), or a large payoff (meaning they can affect your total profits a lot).

Some people think that how much you make is directly related to how much you spend. That, in order to make millions of dollars, you have to spend millions of dollars.

This is not so.

It's possible that a very, very tiny change can affect your bottom line by lots and lots of money.

Consider for example of the \$300 million button, an experiment done by [User Interface Engineering](#) and made famous by Rory Sutherland in his TED Talk "Lessons from an Ad Man."

A very large (and anonymous) online retailer used to have a website that worked like this: (1) the customer would easily go to their online store; (2) the customer would click around, and put items in the virtual shopping cart; (3) after the customer had finished with their browsing, the website instructed them to "Register" to finish their shopping. At this point, while some would oblige, many customers would abandon their cart, taking their dollars somewhere else. Some customers also ended up having as many as 10 different accounts on the web store due to spelling mistakes and such.

How did the company react? Did it spend millions and millions trying to convince people to register, begging and pleading with them not to go?

No.

All it did, was change the button so that instead of saying “Register”, it said “Continue.” And it saw its year-over-year sales increase by \$300 million.

That’s it.

They figured out that the stumbling block to million in revenue was just a little psychological hang up around the word “register”. Turns out, registering for something feels like a daunting task to a lot of people. So they spent five minutes to change the button and watched the money pour in.

Other examples of this type exist. And we’ll get to them in the next section.

For now, it’s important for you to realize that tiny, puny, microscopic psychological hang-ups can cost your business money. Even *a lot* of money. Perhaps \$300 million.

For an opposite example, a case where spending a lot of money resulted in a small (in fact negative) payoff, is another classic case: New Coke.

In the 1980s, Coca-Cola decided to change its famous taste to fend off competitive pressures. They called the drinks with the new formula New Coke. They spent

hundreds of millions, perhaps even billions, advertising New Coke. They got the best popstars to promote them, had commercials during prime time on TV, on buses, on billboards, everywhere you could imagine.

But there was one problem: while sales went up initially, the customers figured out they *really* hated New Coke.

Coca-Cola ended up losing money. It wasn't until they made the switch back to what they called "Classic Coca-Cola" that their revenues turned around.

So let that be a lesson: people like what they like. You can't trick all the people all the time.

The important thing to remember is that sometimes technical efficiency isn't worth it. Imagine a 3-hour train ride. You are in charge of a multi-billion dollar budget to "make the trip better." What do you do?

What most managers do is interpret "better" to mean "faster", and then spend all that money trying to make the train ride fifteen minutes faster. Probably a lot of customers won't even notice.

An alternative way of spending that money is to give free wine handed out by supermodels to everyone on board. It's also possible that this would also cost less than

the technical track improvements. It definitely can be implemented faster.

Now which would draw in more customers? Which would old customers enjoy more?

The lesson is that “better” is an emotional interpretation. And emotions, as we will learn in the next chapter, are what drive customers. The good news is that appealing to people’s emotions can be much cheaper than appealing to math and logic.

PART 2

*5 ways of spending less money to get
more results*

CHAPTER 3

Framing Effects

Now we're getting to the good stuff.

Framing effects are when the presentation of a choice changes the way it's perceived. The fact is, people approach every situation with some frame of reference for what to expect. But it may be possible to change that frame using simple methods.

For example, say you want to buy a bottle of wine for dinner, and the store only has two kinds: cheap wine and expensive wine. If you pick the cheap one, you might think that it will somehow be worse than the expensive one. So you pick the expensive bottle because it's more important for you to think you're not drinking bad wine.

But imagine if the store introduced a third bottle of wine that was even cheaper. Now you have three options: cheap, medium, and expensive. Cheap wine is cheap wine,

and expensive wine is for special occasions. So what are most people likely to choose? The middle priced wine.

In actual experiments using real grocery stores, the evidence seems to suggest that having three price points instead of two will result in more sales. The hypothesis is that customers face too much anxiety when there are only two choices.

Frame your products relative to your own products

For restaurants, one common method is break up the menu into sections like “appetizers/shareables”, “burgers/sandwiches”, and “entrees/plates”.

Sometimes it’s giving people a “false choice” that makes it easier for them to make any choice.

Imagine this scenario. Given a choice between chicken and fish, a “health-conscious” customer might choose fish. But by introducing beef, the chicken now seems *relatively healthier*, and so the customer will choose the chicken.

Frame your products relative to your competitor’s products

Netflix beat out Blockbuster. Why? Because Blockbuster charged \$2 for each movie, while Netflix charged \$10 for *unlimited movies*. All the customer had to

do was realize that Netflix offered a service that was better than going to Blockbuster five times a month. Not that hard.

Redbull is just a caffeinated beverage like Coke, Pepsi, RC Cola, and a million other competitors. But instead of blending in with everyone, its cans were half the size of standard cola cans but cost 5 times as much. This alone was enough to communicate that “it wasn’t like those other drinks.” Because it’s smaller and more precious, it positioned itself like it was a premium product.

Another famous example: The luxury car company Rolls-Royce is most successful selling their cars at plane shows. Why? Because after walking around jets all day that cost from \$20 million to \$200 million, getting a car for \$200 *thousand* is dirt cheap!

Here is a shortlist of preconceptions:

Premium preconception (willing to pay a high price)	Discount preconception (willing to pay a low price)
Smaller portions	Larger portions
Beautiful artwork/design	Ugly/nonexistent artwork
Celebrity/high society endorsement	Associated with low-income lifestyle
Foreign/import	Domestic
Special/exclusive event	Daily occurrence
Other products in the area are relatively expensive	Other products in the area are relatively cheap
Immaculately clean environment	Dirty environment
Smells of perfume, candles, or wood	Smells of dirt or grease

Frivolities/unnecessarily excessive ingredients and packaging	Bare minimum packaging
The asking price is high	The asking price is low

The lesson: **knowing what people’s preconceptions are is very important.**

Regarding the last point: yes, the very price tag of a product or service will communicate to customers the level of quality to be associated with that good. Here’s a story that a lot of people forgot about or missed: When Apple first launched the App Store in 2008, an app called “I Am Rich” grabbed headlines because it cost \$999.99--the maximum Apple would let anyone charge for an app. It only lasted one day before it was banned from the App Store, but eight people still were able to buy it.

Have menu options that are “obviously superior” to others

Imagine you want a burger at a restaurant. The menu offers three choices: the Special, the Favorite, and the Hot and Spicy. The Special has lettuce, tomato, and mayo. The

Favorite has lettuce, onions, bacon, and mayo. The Hot and Spicy has onions, hot sauce, and jalapenos.

What are the odds that someone wants a burger as precisely described? Probably very low. Many people will ask for substitutes. A few might ask for extras. But most would probably be wracked by *indecision*.

People do not like being indecisive. It makes them feel stupid and guilty. Indecision also means more time looking at the menu and not ordering food, eating, paying, and leaving so another customer can come in. Which means indecision is costing you money.

One of your jobs as an entrepreneur is making people decide to give you money as easy as possible. By offering confusing or ambiguous choices, a guest just might leave altogether. Or at least choose not to give your shop a second visit.

To have menu options that are “strictly superior” means simply this: one menu option is *obviously* better in some way than close substitutes. The easiest interpretation of “obvious” means more stuff. An alternative would be better quality ingredients.

Back to burgers, you could offer basic burgers with lettuce, tomato, and mayo. Then offer “premium” toppings

in addition to the basic burger. This is what is meant by strict superiority. Getting more stuff is (generally) obviously better than less stuff. Because it's better, people will pay more for it. And because the differences are clear, they are more likely to make a choice they are happy with.

CHAPTER 4

Endowment effects

People *really* don't like giving away the things they already have. (An "endowment" is a fancy word for "thing you own".) So if you give something for free to someone, they won't part with it lightly. Here's how you can use this insight to make money.

Instead of spending money on ads, give your stuff away for super cheap (or even free)

Consider Pete's Pizza Parlour. Pete wants to increase his revenues. He has \$2000 in cash. What's Pete likely to do? He might hire a local millennial to spend that money on hi-tech ads on Google, Facebook, and Twitter. And it might be a little effective.

But another way Pete could have "spent" that \$2000 would have been to go to the brand new 100-unit condo building that opened up down the street and offered each family a \$20 discount.

Or he could have simply posted a sign outside his window that read “ONE DAY ONLY! PETE’S IS GIVING AWAY \$2000 WORTH OF FREE PIZZA SLICES! FIRST COME, FIRST SERVED!”

Not only would that have drawn more attention than a little sentence among a million other sentences in a newspaper or community poster board, it would have drawn much more people into the restaurant. And if the product is good, those people will become repeat customers.

To reiterate: the purpose of marketing is getting people into your business. There are many potential ways of doing this. But giving stuff away for free works *much better* than traditional advertising.

Compensate people for referrals

Referrals and word of mouth are how most businesses grow. In the 21st century, referrals have moved online as well. So how can you get more people to refer your business?

One way is to simply beg your customers. “Thank you for dining with us, sir. Won’t you please leave a review on Yelp?” But this is pathetic and unlikely to solicit a response other than pity. As the poet Leonard Cohen

wrote, “A man never got a woman back, not by begging on his knees.” Treat yourself and your customers with respect.

Give your customers an incentive to recommend you. Give them a free meal or drink for a Yelp review. Or a *pre-stamped* loyalty card. It is pre-stamped because the more stamps the card has, the more likely they are to use it. And using a loyalty card is sometimes the only thing that drives people to a business.

Or maybe you could even use the money you were going to pay even a couple of bucks cash. How much is one Yelp review worth in future business? Is it more than a couple of bucks? Then don't be greedy, and pay your customers to work for you.

Once your customers get the “free” item after reviewing your business, they'll have a greater affinity for your

CHAPTER 5

Availability effects

The availability of information is very important to decision making. Firstly, people generally do not like making decisions when they are uncertain. Moreover, people like weigh the most recent information in their mind more important than older information.

How can you utilize this in your business decisions? Consider first on when and where you place information. If you place nutrition information *after* describing the Chocoholic Fudge Covered Brownie with Chocolate Ice Cream and Chocolate sauce as the world's most delicious treat, then the nutritional information will be the last thing the customer remembers before making a decision. Do you want them making the decision based on taste or based on nutrition?

Another example: positive reviews. Some restaurants place positive reviews from newspapers and magazines

by the restrooms. If the reviews are supposed to entice people to give your restaurant a try, then placing the reviews in front of people who are *already your customers* makes no sense. Place this information *outside* of your restaurant

One last example: pictures. If you're going through the trouble and cost of taking great pictures of your food, then you should place them in a way that compels people to buy them. Some restaurants place these pictures randomly throughout the menu. Why? Place the picture next to the food so it's the last thing the customer is thinking of before making a decision.

Another way customers respond to the availability of information is by choosing the status quo as opposed to new and different. People are more likely to prefer something if they perceive it as keeping things the same.

How does work in practice? In "opt-in" vs. "opt-out" choices. An "opt-in" choice is where you have to decide whether you want that thing or not. The most famous case of this is choosing to be an organ donor. The status quo is that you're *not* an organ donor, unless you "opt-in" and choose to become one. It is now presumed you want your

organs donated unless you specifically opt-out in Belgium, Austria, and many other European countries.

In restaurants, this like the “make your own pizza” options. You are given a blank slate and are able to choose whatever you want to include.

The opposite of this is “opt-out”. This is when you’re already enrolled in a program, and you have to go out of your way to not get what you’re signed up for.

This is like ordering a cheeseburger, but then asking for no cheese.

In both opt-in and opt-out cases, consumers have every right to decide what they want. In one case, the choice is made for them, and they have to go out of their way to customize; in another, they customize the whole thing.

The bottom line is this: making choices is a chore. So the *fewer* choices a person can make, the happier they will be. Because of this, opt-out systems should be preferred to opt-in. (Unless otherwise is required by ethics or the law: for example, signing people up automatically for an email list not only creates angry customers looking to unsubscribe immediately but, in some jurisdictions, it is also illegal.)

CHAPTER 6

Certainty effects

As stated above, people prefer certainty over the unknown. So try removing as much uncertainty as possible when certainty is what your customers crave.

If you don't already go out of your way to reveal what your "soup (or whatever) of the day" is, by either writing it down somewhere or getting your waitstaff to reveal it as the first thing they say to customers, then you should experiment and see what the reaction is. A simple chalkboard in a visible spot will do this.

Give context

Another way to take advantage of certainty is by *contextualizing* your prices. One obvious way is to break down the menu into sections: appetizers, mains, dessert; or shareables, personal size, or tasters; or small plates, medium plates, and big plates; and so on.

In other words, use your words to describe your menu so your customers don't have to guess as to what they're getting.

Reviews

Creating certainty for *new* customers is crucial. This is done by reviews. Having good reviews is extremely important. So you should go out of your way to make it easy for people to leave reviews for you.

A lot of people don't feel comfortable leaving reviews about a place if someone is watching over their shoulder—especially if that person is in charge of their food. One trick “escape rooms” have used is by asking customers to check-in at the location on Facebook in order to get a modest discount.

Instead of a discount, you can offer free bread (who does that anymore?), or a free fountain drink, or whatever you want. Just make it easy.

Then, post your best online reviews in front of your restaurant so passersby can see them.

If you're a restaurant just starting up, these reviews are crucial to getting people to give your business a chance.

Show and Tell

Finally, *show and tell* people what they're missing out. Learn from internet companies: They'll show three different packages, and then tell you explicitly what each package *is missing*: "Package A costs \$9 and gives you free hosting but no dot-com or technical support. Package B costs \$19 and gives you Package A plus dot-com, but no technical support. Package C costs \$29 and is Package B plus technical support."

Putting things this way makes it clear what your customers are missing out on by choosing cheaper packages. The more information they have, the less indecisive they'll be, and the faster they'll make a decision *and be happy with their choices*.

CHAPTER 7

Emotional effects

Everyone wants to pretend they are in control of their emotions. That facts and reason and logic are how they make decisions. And while it's true that numbers don't lie, it's also true that people aren't numbers.

Emotions play a *very* large part in decision making. That more businesses don't take advantage of them is a trait of our overly mathematized society.

Here are some very easy things you can introduce to your business that will tug at people's heartstrings.

Smiley faces

As simple as they are, smileys are extremely effective. The city of Brisbane, Australia, used to have electronic speeding signs that showed drivers their precise speed. They found 29% of drivers were speeding.

But then they switched the signs to display only a smiley face if the driver was going at or under the limit, and a frowny face if the driver was going over the limit. The result? Only 17% of drivers were now speeding past the signs. That's almost half of the drivers changing their behavior in response to a cartoonish human expression.

Instead of offering any random symbol for the menu "favorites", like a star or your company logo, use smiley faces to get across that choosing these popular items will make them happy.

(Bonus: if you *don't* want your customers doing a thing, use a frowny face. For example, "Don't throw paper towels in the toilet 😞")

Large fonts

The human eye works better when things don't look the same. That's why signs on freeways aren't written in all capital letters. By alternating between capital letters and lower case, it makes reading them easier.

So, font size is important enough that even the government has taken notice. And the government still uses Windows 95!

For anything you put out that has an expiry date, put the date in LARGE fonts to induce a sense of urgency. If the dates are small or obscure, then people will forget about you.

Fonts are serious business. In the United States, it is a federal offense to advertise “turkey ham” with the words in different fonts.

Adjectives

Use descriptive words to affect how people perceive things. Labeling foods by how they taste, their ingredients, or their geography all make an impact. For example, “spicy,” “succulent”, “moist”, “diet”, “local”, and so on. The more descriptions you use, the more information you are providing to your customer, which will make it easier for them to choose and be satisfied with their choice.

Customize and personalize

Finally, customizations can mean the world to your customers in terms of loyalty. The credit card company American Express includes a “Member since” date on their cards. The date alone doesn’t get the client any special discounts. But if someone gets a card with the wrong date on it, they get upset. They ask for a new card.

You can do this too with your membership cards. One way is to simply have a little area where the customer can write out their name and date of becoming a member.

Another way is to provide personalized coupon codes. There are several methods of doing this. One very easy way: you can turn one of your business cards into a coupon. For example, write (and sign) on the back “Free drink” or “\$5 off”.

You can also *sneakily* provide emotional effects on customers. For example, you can ask your customers if it is their first time visiting your business. If they say yes, give them a different colored napkin than everyone else. (For example, return guests have red napkins, new guests have white napkins.)

While they certainly won't think anything of receiving a different colored napkin, it will serve you as a visual reminder to be extra nice to them. You might give them a free refill, a personalized coupon for another visit, or just a reminder to give them a pre-stamped loyalty card at the end of their meals.

WHAT THIS BOOK WAS ABOUT

What this book tried to do was to reveal the emotional biases that everyone faces, and teach you how to influence people's emotions without spending a lot of money.

This is basically a scientific book. It is neither good nor evil. That said, it is definitely possible to use the methods described in this book for evil. We trust that you, as an honest entrepreneur looking to provide the best goods and services to your customer, will only use these lessons for good.

Finally, consider this book as an "introduction" to this way of thinking. There are many other books (that cost a lot more money) that you can find that go into more details about the lessons we talked about above. The end of this book will contain a list of these.

Entrepreneurship is an art more than a science. But we hope that by understanding the science of human behavior, you will be a better artist.

To sign up for our email list, and see our blog with even more nudges, go to <http://butterflyprofits.com>.

