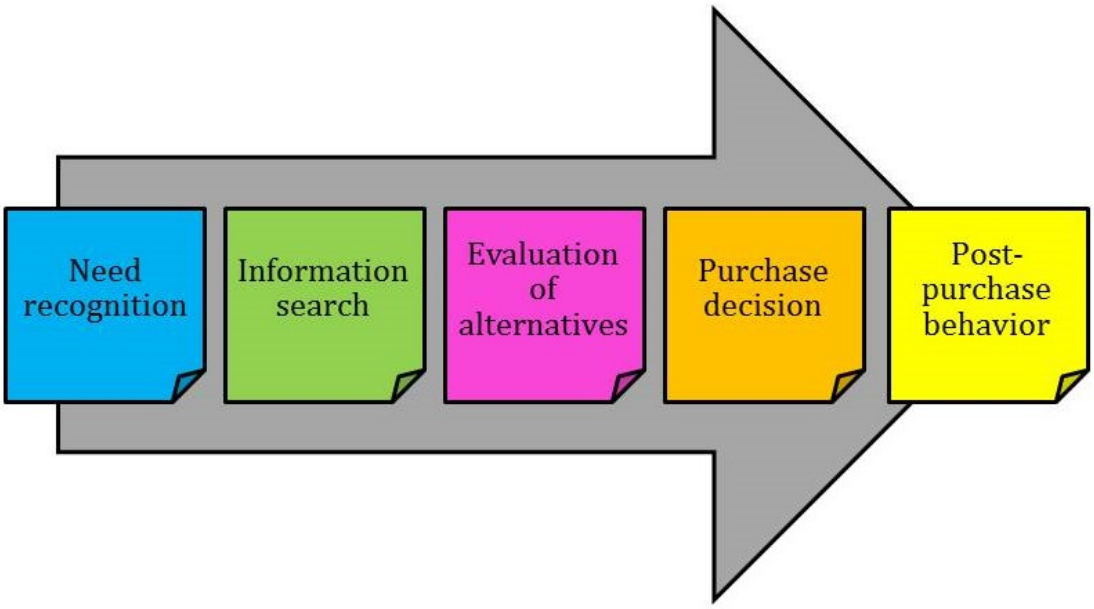
Innovation Barriers

Charles Plant -2017

materialminds

Innovation Barriers

Let's return to the consumer buying process. If you remember from before, there are five steps in the consumer buying journey:



When we were looking at Triggers, we went through what consumers do in the first phase of the buying cycle when they identify that they have a need for a product or a service. In this phase, the focus of attention is on the consumer and his or her needs. Now as we look at the Information search phase, the prospective customer is looking at what solutions are out there in the marketplace and how those solutions relate back to them.

Essentially, it is in this phase when the consumer comes to look at your product and tries to determine whether the product meets their needs or fits into their life. One of the things they are trying to evaluate in this stage is what solutions are out there and what barriers exist to the adoption of those solutions. In the next phase, they'll compare you to the competitors, but right now they are just trying to see if your product is minimally viable.

You might have noticed that I used an expression here relating to minimum viability. "Minimum Viable Product" has been used extensively in the Lean Startup Methodology to talk about having a product that is just enough to introduce into the marketplace in order to get a customer reaction. The idea of an MVP is to create something just so that you can test out a

customer's reaction to what you are trying to produce. Instead of wasting time adding bells and whistles, you can produce something that is just good enough. In this way, you'll be able to gauge customer reaction and determine how you should proceed with basic functions or adding bells and whistles.

But you actually don't need to create an MVP, despite what the Lean Startup folks will tell you. What you need to do is figure out what barriers will get in the way of adoption by understanding consumer behavior. You might not get as far as you can with an MVP, but it is a whole lot cheaper as the first step and can really toss out some ideas just by observing prospects and asking them questions about their behavior.

Mercanix

At Mercanix, our first failure was in not understanding that there were very few triggers that would get customers to look at strategy execution software and training. The next error was in not looking at the barriers that would exist to the adoption of our solution. I have since spent many hours teaching people about strategy and barriers to adoption.

First of all, the solution that I have presented to potential Mercanix customers is very complex to learn. As a methodology it requires them to think in an entirely new way about what they are doing in order to implement it. They need to determine for every person in their company, what success is, who says that something is successful or not and then be able to measure that success. Next they have to be able to correlate that success to the activities undertaken to create it. There is so much that a manager has to learn just to be able to adopt a new methodology that it boggles the mind.

I have taught this approach to many classes and after six sessions of 3 hours each and a lot of homework, I find that people leave with just a cursory understanding of the concepts. Some get it but for the most part, most people leave requiring a significant amount of time to practice how they can implement the system. It works if done properly but the learning costs to get there are substantial and this represents a significant barrier to adoption.

Second, even if people can learn to use the framework, actually implementing in a company in other than a small group requires many changes in the way the company needs to operate. First of all, they need to create and disseminate their strategic plan in a way that connects all of their employees into the plan, drawing a line between results and actions for each and every employee. If this is not difficult enough, they need a system that can collect metrics for everyone in the work environment. So that means new software or significant revisions to a

metrics system that they must already have. Third, everyone in the company has to produce a monthly report and meet with their manager to discuss that report.

Now if that doesn't sound complex enough, I don't know what does. I know the system works well than existing systems for knowledge economy employers because I've done the research that proves it out. I also have companies like Google and Intel that use this approach for all employees and it works well for them.

But for your regular company out there, the costs of learning and the costs of implementation are too significant that the barriers to adoption are ridiculously high. There is a company in the US called Betterworks that has received significant venture capital funding to do exactly this same thing. They position their solution as a Business Operating System and that is much better positioning than we had. I'll be interested to see how they progress over the next few years.

How Barriers Work

How do barriers actually work? When a prospect has identified a need and then decides to go ahead and gather information about solutions, he is mentally asking himself how he reacts to your proposed solution, what would work to solve the problem, and what wouldn't work. He is looking at how his life would change by adopting your solution.

Now you might say that I'm jumping the gun here and going straight to stage three, which is the evaluation of alternatives, but, no, the customer isn't actually evaluating alternatives here, he's just creating a subset of offerings that he will compare to each other later when he holds you up against the competition. In this phase, buyers are looping through the following four steps:

It is during the analysis of search results that customers will discard or include potential solutions and use that information to revise what they are looking for. Thus in this phase they will be looking at the Barriers to their adoption of your solution to see if it warrants further consideration.

Decision Making Models

To understand how Barriers work, you must first understand how consumers come to make decisions. Basically, you can divide decisions into whether they are cognitive vs. emotional and whether they are high vs. low involvement.

Cognitive vs. Emotional

At the heart of every decision is an emotional one. In fact, all decisions have an emotional element. But they also have a logical element, and where consumers are on the decision-making continuum will dictate how consumers will react to your product or service.

Let's look at life insurance. One would like to think that getting life insurance is an entirely logical decision. You need to figure out what amount of money is required by your heirs if you were to die. You'll need to figure out how long it needs to last and what type of return your heirs will need to get in order to live in a certain style. That will dictate how much insurance you will need.

But hold on a second. This can be a very emotional decision. You have to face up to your eventual death in order to realize you need insurance. That is such a hard concept for many consumers that they never actually go through with it and buy insurance. In fact, statistics show that 40 percent of people have no life insurance policy. So the first decision you need to make about life insurance is that you eventually will die. Once you've made that decision, you can get to apply the logical part of your brain to figuring out how much you need.

Other purchase decisions like a cell phone are a good balance of cognitive and emotional. From a cognitive perspective, things like base price, service bundles, service costs, and extended warranty all influence what we buy. On the emotional side, things like how cool the phone is (I think that just saying this makes me sound old), what color it is, and how you can personalize it all matter to some consumers. Depending how you make decisions, either logically or emotionally, you will focus on certain factors.

Some product types lend themselves all the time in a certain direction:

- Utilitarian purchases like lawnmowers are cognitively oriented.
- Ego-expressive or hedonic purchases like fashion are emotionally based.
- Goods for which you can search for information and evaluate are more cognitive.
- Goods that you need to experience and evaluate later are more emotional.

Sometimes the context in which a good will is used influences whether your decision will be emotional or logical. For instance, if you're going to buy a truck for business, your decision will probably be more logically based. If you're buying one to take you camping and to allow you to live an outdoor lifestyle, it will be more emotionally based.

Other issues come to bear in these decisions. Cognitive decisions tend to be slower to make and emotional ones tend to be faster. Teams tend to make more emotional decisions but as we age we tend to become more rational.

High vs. Low Involvement Decisions

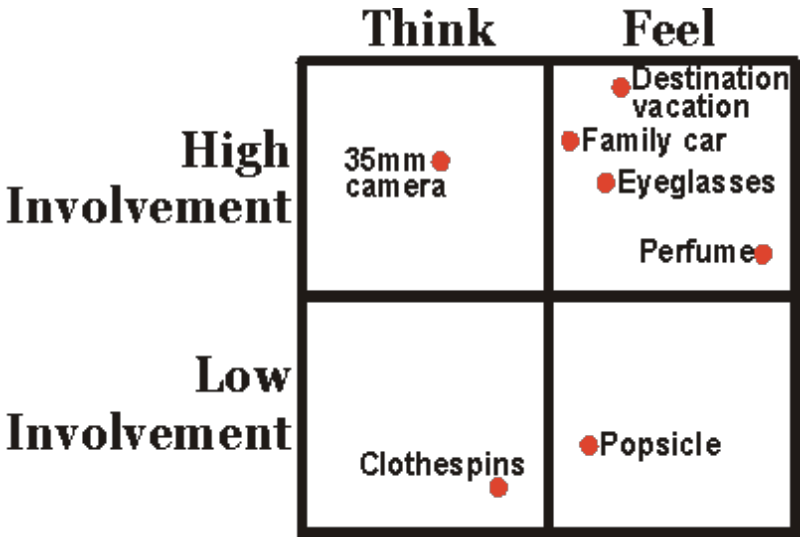
Decisions also can be categorized as to whether they are high versus low involvement. High involvement decisions need more brainpower and:

- More attention
- An advanced understanding of needs
- A higher post consumption evaluation
- Slower decisions

On the other hand, low involvement decisions need:

- Less attention
- A basic understanding of needs
- Low post-consumption evaluation
- Fast decisions

Overall you can look at a few examples of types of decisions and how they are made in the following chart:



The Nature of the Purchase will dictate how much Barriers matter

If you look at the chart above, you'll notice that the low involvement decisions are relatively easy to make. This means that barriers to purchase will probably be low. You won't have to go through many hoops to get a customer to try what you are offering. On the other hand, high involvement decisions will be subject to many barriers and you'll want to pay close attention to these barriers.

It will also dictate which ones matter.

The other thing that the nature of the decision will dictate is which barriers matter. Cognitive decisions will be subject to cognitive barriers. Emotional decisions will be subject to emotional barriers. The point is that you need to understand what kind of decision your prospect will be making in order to understand what sorts of barriers will get in the way.

1. Logical Barriers

    - Functionality
    - Transaction costs
    - Learning costs
    - Obsolescence costs
    - Sloth factor

2. Emotional Barriers

    - Perceived value
    - Psychological costs
    - Endowment effect
    - Status quo bias
    - Switching risks

Think about it

Before you go on, try to establish whether the problem you are trying to solve would be classified as cognitive or emotional and whether it would be low or high involvement.

They don't solve the problem – actual value

The first barrier that a consumer will put in the way is whether your product or service actually meets the need for which it is intended. This is a totally logical barrier and can be either easy or complex for the consumer to figure out depending on the nature of the product. Get over this first hurdle and you're off to the races. Fail to clear it and you're toast.

When a consumer, whether individual or corporate, tries to assess whether the product has what they are looking for, they're going to look at three main factors: quality, speed, and cost. Suffice it to say, consumers in this phase of the buying process are trying to figure out exactly what their needs are and whether your solution fits into the broad group of products or services that could meet this need. You don't have to win at this stage; you just have to be in the right ballpark. You have to be among the competition at this juncture, but not necessarily the leader

Let's say you've just landed a new job and you need to figure out how you're going to get to your new work location. That's the trigger. Your life has changed and you now need to figure out how to solve your transportation problem, perhaps by buying a car. During the need identification phase, you'll probably do a bit of work to figure out what options exist. In this phase you'll start to search for information about your options looking at looking three dimensions:

1. Quality

   What are my options for getting to my job reliably with the required level of comfort and enjoyment?

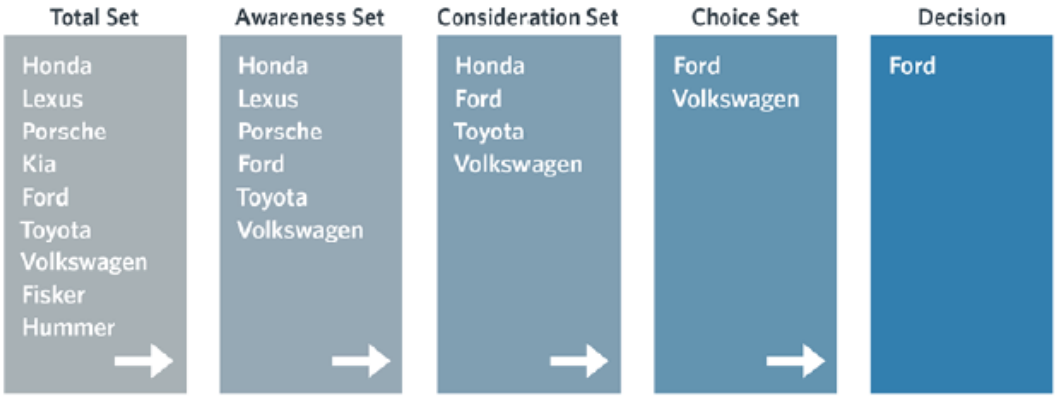
2. Speed

   This is a more complex question as you could be looking to determine which option gets you to work the fastest or which option is the fastest to implement. I tend to think that the former option is an element of quality, not of speed, but whatever. You can make it be whatever you like.

3. Cost

   This one is easy. You're going to look at the upfront and ongoing costs for your solution.

For each of the options you look at, you'll be gathering a whole pile of information that will come to affect your decision in the next phase when you get into detail evaluating the alternatives. But you will make some elementary decisions about the options, throwing those out that clearly don't meet the needs you are establishing. Essentially, you are moving from your awareness set to your consideration set in this phase. If you decide to buy a car the following represents how you might see the options.



Your job as a vendor is to make sure that your product is part of that consideration set. This means that you will need to have a really good understanding of your prospect before they reach this stage. You should know what their needs are from a technical and logical perspective so you don't get thrown out before the bidding starts.

Apple versus Blackberry

A good example of this phenomenon is Apple versus Blackberry before Blackberry solves some of their product design issues. If you had come to realize you needed a new cell phone because yours died a few years ago, you would be responding to an operational trigger. When you start to look at all of the options available, you discover that smartphones have the ability to troll the web easily when they didn't have this capability before. You'll also find that they have apps available on some of them that make them even more useful. But then you'll think about how much you might need to use a smartphone for email.

You've got some basic information and you'll need to make a basic decision. Do I need the phone to surf the web and use apps or will I need it primarily for email and could care less about the other functions? It was decisions like that that sunk the Blackberry. Consumers were coming to expect a high degree of functionality on their phone and didn't care as much about email anymore. So while Blackberry was in the awareness set, it didn't get into the consideration set because the lack of surfability and apps was a deal breaker for consumers.

Market Research

If you're out there designing a new product or service, you can't ask consumers whether they will buy your product because they will probably say maybe because they won't want to hurt your feelings. When you're innovating, very few people will tell you that your idea sucks because they just won't want to appear negative. So you can't ask them if they like your idea. You're going to have to ask them what their minimum acceptable product or service requirements are. Then you're going to have to interpret those answers to see if you meet their needs.

This is really hard when you're developing something that no one has ever thought of before. Say for instance that you're developing the iPod, a radically new music player that most of us take for granted now. You'll need to use the design thinking style of doing research to figure out:

- How people are listening to music now
- What they like about that
- What they don't like
- Their feelings about their current experience
- Challenges
- Obstacles
- Most important issues

And a whole bunch of other questions. Then, understanding what they are doing now and how they feel, you can evaluate your own product or service features (objectively I hope) to see if your solution breaks through the barriers. And if it doesn't break through those barriers, you can change what your offering is.

Devils Advocate

As you're going through this process, one of the best things you can have is a Devil's Advocate. The job of the Devil's Advocate is to come up with all of the reasons your product may fail or all of the areas of weakness in your plans.

Think about it

Before you go on, try to establish what the essential features of a customer solution set are and whether your product or service is able to break through the minimum barriers.

Transaction costs

If you've made it over the first barrier, that of meeting a consumer's minimum needs, the next barrier relates to transaction costs. This refers to how complex it is to actually purchase what you are selling.

As far as barriers go, this one shouldn't be a difficult one to deal with in most situations. It involves any actual costs and the time that needs to be spent to evaluate and purchase your solution. Let's take a look at an example of a consumer product sold through a website. There are all sorts of issues that can increase a consumer's transaction costs and create an artificial barrier to purchase:

- Making the buying process non-intuitive

  If you have a website that is hard to navigate, for instance, buyers will shy away from figuring out how to purchase what you are selling.

- Hidden Pricing

  If there is no pricing information available and you require buyers to enter their email address to get information, then you are creating an artificial barrier.

- Delivery

  Not offering expedited delivery can erect a barrier for consumers who want to acquire something quickly.

- Choice

  Having too many product or service options or making configuration difficult can create a barrier.

The best example of a choice barrier arose as Apple developed too many products before Steve Jobs came back in to take over. When he came back to Apple in 1997 as a consultant, he found a company that was severely unfocused. Apple had a dozen different versions of the Macintosh and each of the versions had a different confusing number ranging from 1400 to 9600. Even Jobs couldn't figure out how to recommend which versions his friends should buy. When he

couldn't get simple answers as to why Apple was selling so many different products, he started slashing products and models. He got the company out of the printer business because they could not make money on such an undifferentiated product. He got them out of the server business, and he eliminated the Newton, the personal digital assistant with handwriting recognition. Soon after his arrival, he had cut 70 percent of the products Apple was making while his predecessor had been trying to add more.

At one product session, Jobs had had enough and he grabbed a magic marker and drew a four-square chart on a whiteboard. "Here's what we need," he stated. On top of the two columns he wrote Consumer and Pro. The two rows he labeled Desktop and Portable. Apples' new focused job was to make four products, one in each quadrant. This ability to focus saved Apple from extinction. "Deciding what NOT to do is as important as deciding what to do. That's true for companies, and its true for products."

Figuring out transaction costs

You actually don't even need to talk to consumers to figure out if your transaction costs may be too high. The easy way to figure this out is to create a buyer journey map. Write down a description of each step in the buying process:

- The time it takes to complete each step.
- Any actual costs associated with each step
- The time incurred between steps.

And then step back and ask yourself whether this is reasonable. Does each of these steps add value? Will a consumer be willing to complete the process in order to make a purchase?

Amazon has done a superb job of reducing transaction costs.

- Finding a book is very easy with a simple search mechanism.
- You can see what is inside the book and sample it to see if it is right for you.
- You get recommendations about other books you may like.
- Finally, they allow you to click just once to order the book.
- And if you want it on your Kindle, it is loaded on your Kindle automatically the next time you open the application.

Even if you wanted the book delivered, they give you a few options and quick turnaround. Consider instead what you have to do to buy a book in a store.

- Go online to choose a book.
- Find out what store it is available in.
- Drive, subway or walk to that store.
- Try to find the book in the store
- Buy it.
- Drive home.

Amazon hasn't just totally changed the book industry with wide selection and low prices. It has dramatically changed the process of buying, lowering transaction costs to remove barriers.

Think about it

Before you go on, try to establish what transaction costs that you have created that will create a barrier to purchase.

Implementation costs

While buyers might not think through issues all that logically when they are in the Information search phase of their buying journey, that doesn't mean that you can't think logically about their adoption process and proceed from step to step through how they buy and come to use an innovative product. In the purchase process the step after buying is implementing and that is where the next barrier lies.

If customers perceive that the time, complexity, or cost of getting a solution implemented isn't worth it, then they will discount your solution as a potential way to address their problem and either stay with what they are doing now or buy from a vendor with a simpler path to implementation.

Implementation doesn't only mean what is involved in putting your solution to use; it also includes all of the background work needed to get ready for that implementation. For instance, if you're selling a customer a new type of showerhead and it means that they have to change all of the plumbing in their house to accommodate the new showerhead, then you've got a significant implementation barrier in place. Or to add even further complexity, if you need to get the water intake to the house changed so that water flow is increased from the city then you have an even bigger barrier that is out of the homeowners control.

SAAS Software

I think the best example of dealing with existing barriers is the introduction of Software as a Service ("SAAS"). Let's say for example that you're a big company that needs new Customer Relationship Management ("CRM") software. (CRM software enables you to keep track of and manage customer relationships.) Well you've got three levels of choices with CRM software:

1. **Enterprise Class Software**

   If you're a huge company with all sorts of time and money, you could buy an enterprise class solution form some company like Oracle. This will be a very expensive solution that will require a significant amount of time for installation and configuration. Even worse though, you may have to buy new servers and in order to manage those new servers, you might have to hire a whole new team responsible for the maintenance of your huge new IT operations.

2. **Mid Tier Software**

   If you don't feel like a huge implementation headache, you could look at something like Microsoft Dynamics. While you might not need new servers or a new staff with a Microsoft implementation, you may need to upgrade your current software levels and maybe dedicate a machine to run the software. This won't be a huge headache but you will probably have a few complexities and it might take you a bit of time to get a solution implemented.

3. **SaaS Software**

   If you don't want to go to that level of complexity, you could always go online as millions have done and start to use Salesforce. From the moment you decide to use Salesforce to the time you are actually using it would be about 5 minutes. There is absolutely nothing you have to do in order to implement an online solution except sign up for it. In fact many of these online solutions like Zoho CRM make it free to use, removing cost as a barrier totally.

Why do you think online solutions have caught on so quickly? It is because, among other things we'll discuss later, there are absolutely no implementation barriers. These sorts of implementation barriers exist in a variety of different product types. One of the biggest opportunities out there in business is coming up with technological solutions that remove barriers from a whole class of products.

When you look at the history of connectivity, you'll see the work that has been done to remove barriers. When you look around the house, think back 20 years. If you wanted to connect two devices together, you needed to string a wire n=between them. In fact people had their whole houses rewired just to enable Internet connectivity in all rooms. And the Wi-Fi came along and this allowed devices to connect wirelessly through a hub. Well for many applications now you can use Bluetooth and do away with a hub for connection.

Mercanix

Back to Mercanix again and what I've learned from failure. We didn't get far enough down the line with customer discussions to find out whether there were implementation barriers but I sure discovered them later when I was training people in strategy execution.

In order to implement our solutions for strategy execution, a company would basically have to change the entire way it operates. It would have to change how it set objectives, how it measured results, how it communicated results, how it managed performance, conducted meetings. Have I made the point? Implementing our solution would have required wholesale changes to management practices in order to do it properly.

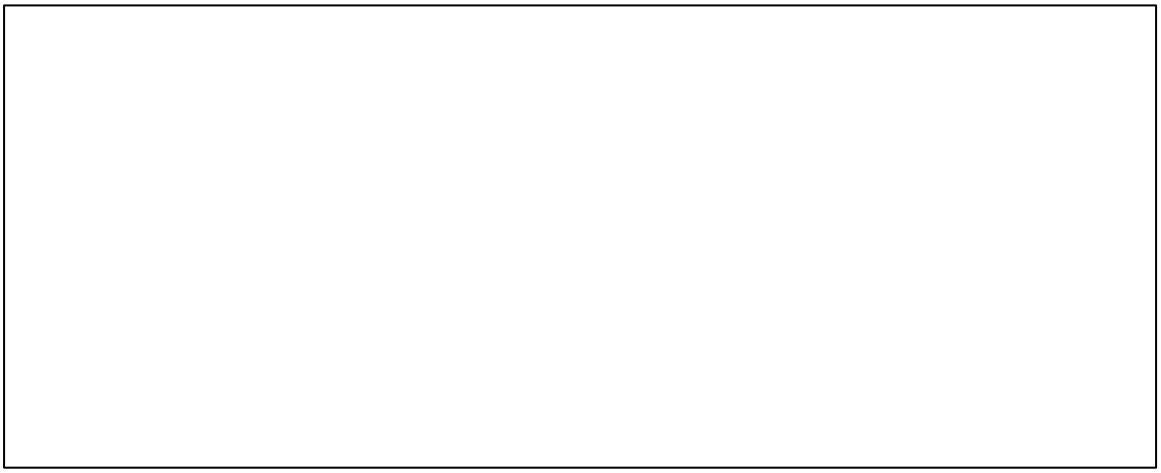
I'm still confident that we had the right solution to the problem of strategy execution. In fact, if it were to be followed by a company when it was starting up the way Google or Intel did, and

then there would be no problem. But trying to implement a solution like that when the company is up and running is entirely another matter.

I've been working with individuals to enable them to implement these techniques now for several years and every time I do, I'm dismayed at how complex it is to change process, even in a small way in a team, let alone in a company. The biggest problem remaining in a team environment is that of measuring success. This is fundamental to success in strategy execution but it requires a significant expense in collecting and managing data.

Think about it

Before you go on, try to establish what implementation costs that you have created that will create a barrier to purchase. To do this, you might walk through and document each step in the implementation process. Try to figure out the time and cost involved in each of these steps. Then you can figure out how to reduce the costs and time.



Learning costs

Next up are learning costs. After a customer has purchased your solution and implemented it, everyone needs to learn how to use it.

Let me provide an example. A friend of mine had just finished training a few clients on a software package he had installed and was on was an elevator leaving their office. He overheard two people at the clients who were going to be using the new software discuss it. Both of them agreed that they weren't going to bother learning the new software until the people who had just been trained worked all the kinks out of it and were satisfied that it was worth using.

Many vendors forget the training costs of using a new product or service because they live and breathe whatever the solution is and they, of course, after so long developing it, don't need any training. But you can't underestimate human's natural reluctance to learn new things.

I don't claim to be a genius when it comes to learning software products so maybe it is my own natural stupidity that is getting in the way. Frankly, I find using Adobe Photoshop and Illustrator to be unbelievably difficult. The software is the opposite of intuitive. There are numerous ways to do anything and remembering those ways from one occasion to the next is impossible for me.

The only way I manage to use these packages is because of YouTube. Whenever I want to learn how to do something, I go on YouTube and watch a video some nice user has prepared. I can pause the video, do what they say, and then go back to watch more of the video. One thing I have noticed, though, is that there are numerous ways to accomplish any particular function. The net result of this is that none of the videos will tell you the same way to accomplish any objective. The other thing I have noticed is that the way you do something depends on the version you are using. I have to specify which version of Photoshop I am using so that I get the right video. If I get the wrong version, I can end up with a video that makes no sense whatsoever.

Contrast this with Apple (I know I am showing my bias again). I was a big user of iMovie. It was bundled free with my computer, had a lot of functionality that enabled me to do what I wanted to do, and I could work around things that it wasn't really designed to do. The software was really easy to use as well because Apple made that software work the same way all of their other software worked, quite intuitive and following similar clues.

But then one day, I upgraded my computer and operating system to another version. This upgrade included an upgrade to iMovie. The next time I went to use it, I discovered a few functions (I can't remember what they were) that I couldn't use in the new version. I felt betrayed that Apple had taken away functionality. I figured that I better change video editing platforms and just get on with it.

I had used Final Cut X a bit a few years before and for some reason had remembered it as being quite complex to learn. I thought back to when I had a huge video team that did editing for me and they used Sony Vegas so I started to look at it as a potential solution. But I got worried about learning costs and obsolescence costs (more on that in a bit). So I bought Final Cut Pro. What a relief. Apple had made it so much like iMovie that it took about 15 minutes before I was up and running, doing the things I wanted to do.

User Simplification

User interface Design is increasingly coming to be a new basis of competition for technology companies launching new products. Industry studies have shown that every dollar spent on UX brings between $2 and $100 in return. When companies focus on product functionality to the detriment of simplification, they are essentially forgetting that learning costs are a barrier to product uptake.

> Forrester Research finds that "implementing a focus on customers' experience increases their willingness to pay by 14.4 percent, reduces their reluctance to switch brands by 15.8 percent, and boosts their likelihood to recommend your product by 16.6 percent."
>
> http://www.fastcodesign.com/1669283/dollars-and-sense-the-business-case-for-investing-in-ui-design

One of the best examples of a problematic design was Microsoft's Zune, a portable MP3 player that they brought out to compete with Apple's iPod. When the Zune first came out in 2006, it had been designed to compete with Apple's iPod Classic. When Zune HD came out though in 2009, the market was already moving to iPhones and connected handhelds.

> "The Zune HD was part of Microsoft's vision-free, 'lost generation' of mobile products. Yeah, it ran apps—but since Microsoft had no overall mobile strategy, there were no apps. And it had a browser, but since Microsoft had no overall mobile strategy, it was a lame browser. It was an evolutionary dead end. And it had to die.

> "The iPod touch, on the other hand, is part of a coherent, well-connected ecosystem. It runs the same OS as the iPhone; later, the iPad joined the crowd. Apple's commitment to iOS has never been questioned. The iPod touch is a device in which people can have faith."
>
> http://www.pcmag.com/article2/0,2817,2394088,00.asp

Mercanix

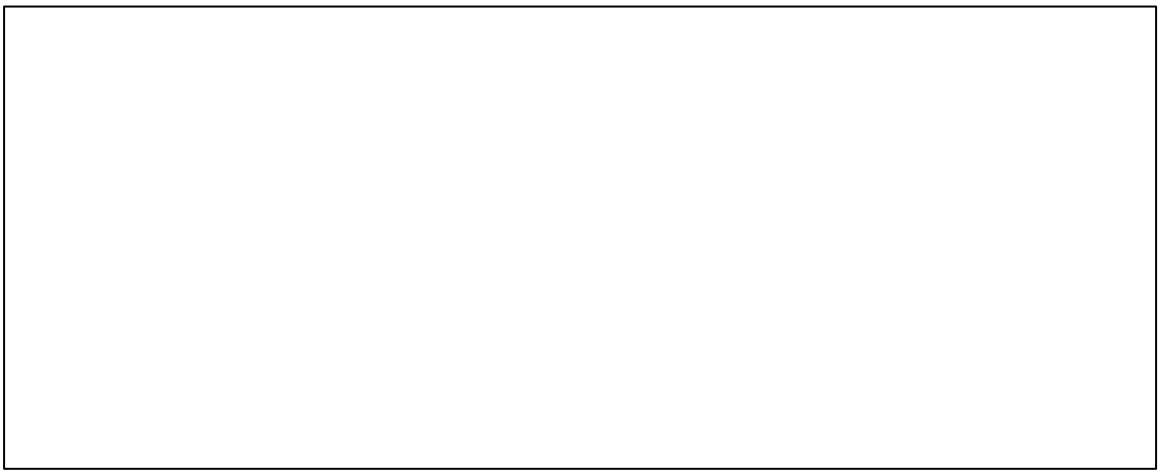
And then there was my experience with failure. I didn't realize it at the time, but subsequent workshops to teach people how to do a better job executing strategy has led me to realize that while I have an excellent solution to a major problem, it is just to difficult to learn how you use it.

I still teach workshops on how to improve strategy implementation although I suspect that this revenue stream will dry up to zero once people read what I'm writing here. The courses I teach are three hours a week and four to six weeks long. They come with a lot of homework that sometimes participants actually complete. But either I'm a terrible teacher or the material is so complex to grasp that I suspect most people leave the workshops unable to apply what they learned properly.

I believe that they do profit from a new way of thinking about management and leadership and that new way of thinking alone has tremendous benefit but small things such as how one can accurately measure work output in many situations remains cloudy. There is just too much to learn to be able to figure out how to measure the success of a receptionist for instance on a regular basis.

Think about it

Before you go on, try to establish what learning costs that you have created that will create a barrier to purchase. To do this you might walk through and document each step in the learning process. Try to figure out the time and cost involved in each of these steps. Then you can figure out how to reduce the costs and time.



Obsolescence costs

The last in this series of costs are obsolescence costs. Many innovators don't think of these as mattering as much as they do, but consumers are very sensitive to any perceived loss in something they have invested in. Obsolescence costs are incurred when somebody has an investment in assets, which will be obsolete after the introduction of the new product or process. Those assets may be physical or they may be knowledge-based assets but the effect is the same.

Obsolescence costs can also be referred to as sunk costs. Oddly enough, from an investment perspective, sunk costs really shouldn't be factored into a valuation of returns from any new investment as they have already been made. This is what theorists will tell you and from an investment perspective, they are correct. But this isn't what buyers believe.

For example, let's say that you introduce a new printer that has refillable cartridges. It's a simple example but any company that had an inventory of printer cartridges stored up would lose any value in those cartridges when they buy the new printer.

If you are a big user of Photoshop or Illustrator and decided to use a new type of software to perform the same function, it would be likely that your old files wouldn't work on the new platform, so any investment you have in the old files would be lost. You couldn't take an old design and modify it slightly; you would have to start from scratch again. This is another type of obsolescence cost.

Another cost of obsolescence happens when you buy something that isn't compatible with what you already have. It doesn't necessarily mean that the old thing is obsolete, but it effectively is to the new thing you are buying. For instance, if you are a devotee of one type of computer platform and you decide to buy something based on another platform, many of the applications will not interoperate on both platforms so you have made your old investment semi-obsolete.

Computer software vendors have done a lot to ensure that this problem doesn't happen. For instance, if you are a user of Apple Photos and want to see them on a Windows device, you can download iCloud on Windows and have access to those photos. If Apple hadn't done that, they would have made Photos obsolete just for users when they are on a Windows platform.

Things that have become obsolete

Here's a list of things that are becoming obsolete as a result of technological change. In each case, people would have had obsolescence costs to deal with, and innovators would have had to fight against entrenched habits to break through with their new product or service.

- Personal digital assistants
- Email accounts you have to pay for
- Dial-up internet
- Getting film developed
- Movie rental stores
- Maps
- Newspaper classifieds
- Landline phones (in progress)
- Long distance charges
- Public pay phones
- VCRs
- Fax machines
- Phone books
- CDs
- Backing data up on floppies
- Getting bills in the mail (in progress)

http://www.businessinsider.com/21-things-that-became-obsolete-this-decade-2009-12?

On the other hand, there are all sorts of things that you would have thought would be obsolete by now but that have not become so partly because of obsolescence costs. The following list is from 2013 and shows how many things you thought were obsolete actually were sold in 2012:

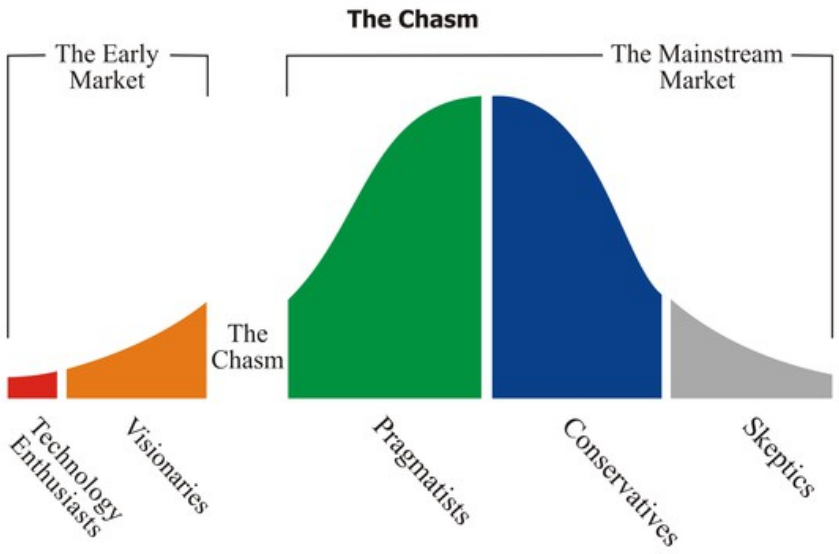
- 10 million people still use dial-up internet
- $7 million was spent on new pagers
- 20,000 dot matrix printers were sold
- 13 million blank VHS and cassette tapes were sold
- 350,000 PDAs were sold
- 26.5 million landline phones were sold
- 10,000 CRT TVs
- 35 million rolls of film
- There are 305,000 active pay phones

- More than 150,000 people are using an OS from the last century
- More than 700,000 fax machines were sold in 2011 and 2012

http://www.laptopmag.com/articles/12-outdated-technologies-refuse-to-die

Crossing the Chasm Again

Let's return to crossing the chasm and look at who is influenced most by obsolescence costs.



As you progress to the right on this curve, you will probably see a greater and greater incidence of buyers refusing to innovate because of obsolescence costs. Visionaries and Pragmatists understand that you should not factor sunk costs into any valuation of a new innovation, but for this and other reasons, Conservatives and Skeptics will be more likely to be influenced by the cost of obsolescence.

To reduce these costs from influencing consumers, companies are engineering in a shorter lifespan to products so there won't be perceived loss through obsolescence. Products will fail before they can become obsolete just so consumers will not be throwing away something that works when they innovate; instead, they'll be throwing away something broken, thereby eliminating obsolescence costs.

Unfortunately, the only way to get over obsolescence costs is to have such a compelling value proposition that buyers don't factor in obsolescence.

Think about it

Before you go on, try to establish what obsolescence costs that you have created that will create a barrier to purchase. And ask yourself if you have created a compelling enough value proposition to get over these costs.

Risks of Switching

If you can't remember it, imagine that every time you picked up your phone you got a dial tone. That is absolutely every time. You could be four days into a power blackout as we once were when the entire power grid in the eastern seaboard lost power in 2003. Many people were without power for two days and there were a lot of remote communities where power wasn't restored for nearly a week.

Cell phones stopped working, cable TV was down, railroad service was cut off, gas stations couldn't pump gas, some areas lost water pressure, regional airports were shut down, and, of course, no lights worked without power generators. But during that whole time, you could make landline-based phone calls without a problem. If you had a cordless telephone you were toast, but standard old telephones worked just fine.

And why was that? Well, the expression in the telephone industry was that "No risk was too small to avoid." Telephone companies would go to absolute extremes to make sure their phone networks continued running. I had been at Synamics for much of the 15 years prior to that blackout, and we were suppliers to the telecommunications industry. At some point in time we recognized that one of the most important product qualities for purchasers in the industry was risk. Buyers in telecom were willing to pay obscene amounts to ensure that there would be no risk of failure. Realizing that, we engineered risk completely out of the systems we sold them and at the same time, jacked our prices up so that it became profitable to do so.

We regularly faced competitors with prices that were as little as 50 percent of ours, but we could look our customers in the eye and guarantee with money back guarantees that our systems would never fail.

Whenever a buyer stops what they are doing now and buys a new product, whether that product replaces another product or is in a completely new product class, the buyer does that with a certain degree of risk. The degree to which they are influence by that risk will determine what you have to do as a vendor to get over it.

Real versus Perceived Risks

Real risks come from the natural environment. They are tangible and—what else can I say—they are real. Failure will come at a cost and be noticeable. Perceived risks, on the other hand, are imagined or thought to be a risk when they might not be there. The problem is that for a buyer, it doesn't matter if risks are real or perceived as they are both valid.

For instance, if you are starting a new company, buyers will always perceive risks that will be greater than which might exist because they have no way of measuring actual risks by talking to existing customers. But the perceived risk may not be a real risk if you've done your job right in product or service development

> Perceived risk is more powerful at explaining consumers'
> Behavior since consumers are more often motivated
> to avoid mistakes than to maximize utility in purchasing.
> (Mitchell, 1999)

Perceived risk increases as the promises for a product or service increase. The more radical the innovation, the higher degree of risk there will be perceived to be. In these cases, the level of confidence that a prospect has with the value proposition can have a bearing on success. A low level of confidence can only be increased through careful marketing and time and experience. It might even be better to promise less and over-achieve, as you'll have an easier job getting something into consumers' hands. This will reduce perceived risk.

Perceived risk is relatively easy to identify because in market research situations, interviewees will reply with comments such as "I don't think this will work" or "This doesn't seem possible." If respondents focus on reasons why something might not work, you may be experiencing perceived risk that could affect adoption. But in any case, it is much better to gauge perceived risk rather than real risk.

Product versus Supplier Risks

Risk can also be evaluated as to whether it comes from the product or the supplier. There will always be new product risk when someone is buying something they have never purchased before. The risk is even greater though when they are buying it from a new supplier. In addition, purchasers look at startups as the riskiest companies to do business with.

I know of one company that is in the business of designing a very innovative way to dampen movement of buildings during earthquakes and from high winds. When they started marketing, they were quick to tell potential customers how radical and new and innovative their products were. After a while, when customers starting exhibiting reluctance to try them out due to this risk, they changed their marketing tactics entirely. They started talking about how old their technology was, how established it was and how it was only a small departure from the existing technology.

The risks associated with dealing with a startup can be both real and perceived. When I was with Synamics, we actually never told any of our telephone company clients how large we were for fear they would stop dealing with us because we were relatively small. We went out of our way even to appear to be bureaucratic so they would think we were larger. This also meant that we couldn't enter any of those Fast Growth competitions, many of which we qualified for, because clients would figure out our size.

Strategic Risks

A company cannot look only at where risk comes from; they can also look at how it affects them. The highest level of risk is whether a new product purchase or a new vendor will affect their strategy. This is strategic risk. If, for instance, a company is buying a product to include with something that they resell to their own customers, then their sales can be affected by the quality of the goods from their suppliers.

One of the biggest examples of supply problems hurting a company's strategy was Boeing's battery problems on its 787 Dreamliner. During its first year of service, at least four of their aircraft suffered electrical problems as a result of the lithium ion batteries they used. A number of fires in their airplanes eventually caused a full grounding of the 787 fleet in 2013. This was the first time that a fleet had been grounded since 1979. The eventual blame started at the door of their supplier, GS Yuasa of Japan, whose battery manufacturing methods were held to be responsible for introducing defects that were not caught during inspection.

For Boeing, buying these batteries represented a risk and a very strong one that directly affected the perceptions of their customers toward safety. If you are selling something that can directly affect a customer's strategy, then they have strategic risks buying your product.

Compliance Risks

Not as common as strategic risks are compliance risks. These occur when what you are selling has the ability to enable your customer to either comply or not comply with regulations. For instance, if you are selling accounting software part of which is used to calculate sales taxes and remit those to the government, then you have to get it right. I had this problem once and only once because when you have a problem like this, you work really hard to ensure you never have it again.

In our case, we were using software to calculate provincial sales taxes. This was a complex, rule-driven process that stipulated what was taxable and what wasn't and then computed sales taxes appropriately. We did it wrong and found that there was a whole class of sales that we should have been calculating sales taxes on that we weren't. We found this through a government audit that proved very costly. Not only did we have to pay the taxes we should have paid, we also had to pay interest from the date it was originally owed as well as penalties for failing to declare taxes. The really bad part was that we couldn't get this money back from customers because the bills were from so long ago.

So someone who is selling accounting software or any other product that enables someone to comply with regulations is seen by a customer to have special compliance risks and customers will go out of their way to ensure that these aren't going to negatively affect their business. In some cases, compliance risks become strategic risks when failure to comply or changing regulations can shut down your entire business. Think back to the online music-sharing businesses like Napster that arose in the late 1990s. They were sued successfully for copyright infringement and had to shut down their businesses entirely as a result of compliance failure.

Operational Risks

There aren't as many companies selling products or services that can result in strategic or compliance failures, but there are a lot that sell things that create operational risks. An operational risk occurs when something can screw up the day-to-day operations of a company. It can be from something like a server outage to a production glitch or even an inventory outage. In the long run these aren't as serious as compliance risks or strategic ones, but they are annoying nonetheless.

For operational risks, not only is there the cost of fixing the problem, but also issues such as these may make it difficult for customers to do business with you, resulting in a loss of revenue and potential damage to your reputation. Enough operational outages piled one upon the other may result in a strategic risk.

By far the worst operational problem ever experienced was the collapse of the Rana Plaza in Bangladesh. In order to save money, companies like Wal-Mart, Joe Fresh, and Benetton had moved their garment manufacturing to Bangladesh in the years preceding the collapse. Much of their work was done in a building that was originally not designed for the weight of manufacturing equipment and that was not designed to be as tall as it ended up being.

Cracks appeared in the building and evacuation was ordered, but the workers were ordered back in the next day and threatened with fines if they didn't show up for work. When the building collapsed that very day, more than 3,000 were in it; 1,130 people died and more than 2,500 were injured.

You could argue that this was more than an operational risk, and that there were in fact strategic, compliance, and reputational risks associated with this outsourcing, but you need to look at the aftermath. All of the Rana clients involved are still operating and while they suffered some negative press right after the accident, it doesn't appear to have had any lasting impact to them. It is sad to think in fact that the only risks to Wal-Mart et al. were operational risks as their supply of garments was delayed as they worked out new supply arrangements. Many people lost their lives and yet bad working conditions persist in developing countries because companies like Wal-Mart don't actually suffer anything more than operational risks from such business practices.

Financial Risks

Financial risk is present in all other types of risk, but sometimes it exists all on its own. You can see financial risk associated with each of the different types of costs we laid out in the last section. You could have financial risk that comes from:

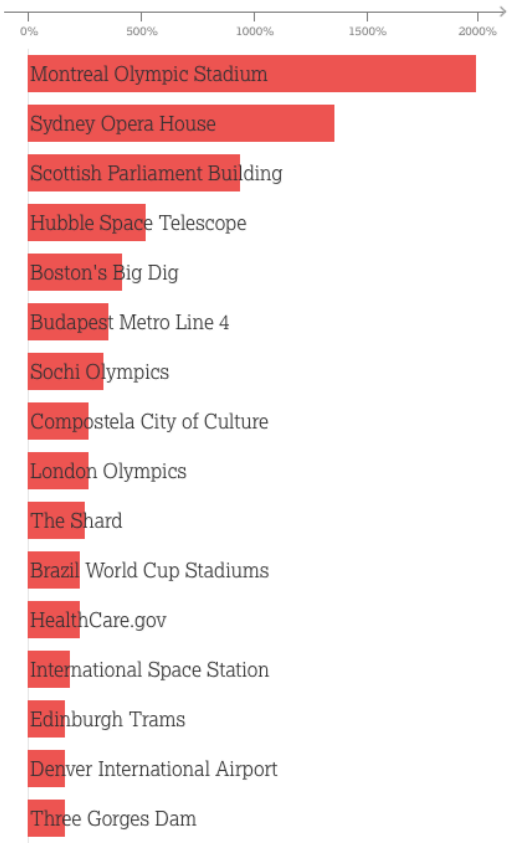
- Transaction costs
- Implementation costs
- Learning costs
- Obsolescence costs

Any time you have a new supplier, you have risks that the costs of whatever you are purchasing will spiral out of control and significantly affect the overall viability of your project. This can just as well happen with large projects as well as small. A personal favorite of mine is the Montreal Olympic Stadium because I used to live in Montreal.

> "Originally nicknamed 'The Big O' thanks to its name and shape, but later dubbed 'The Big Owe' thanks to spiraling costs (more than 20 times the original budget). Despite the hard deadline, it wasn't actually completed on time - work on major components like the mast and retractable roof didn't begin until after the Olympics."

http://www.telegraph.co.uk/finance/economics/11130653/Monumental-budget-busters-when-the-cost-of-infrastructure-projects-spirals-out-of-control.html

Take a look at the following monumental projects and look at how they spiraled out of control.



What you'll notice about all of these projects that ran well above budget is that they were actually all finished successfully in the long run. Because of the nature of the projects, there was no strategic risk, and operational risk didn't exist until they were finished so that financial risk was the biggest concern.

Certainly, if you are running an Olympic Games, though, your risks can be more than financial. Even though the media always talks about operational and strategic risks ahead of the Games, the hosts always seem to be able to put on the Games, just suffering the financial consequences from it.

Reputational Risks

Finally, we get to reputational risk. It also comes with every other type of risk. The more public the project, the greater the reputational risk. In each of the projects mentioned above, there was significant exposure to reputational risk. The most famous saying that relates to this is attributed to Mayor Jean Drapeau before the Olympics:

"The Montreal Olympics can no more have a deficit than a man can have a baby."

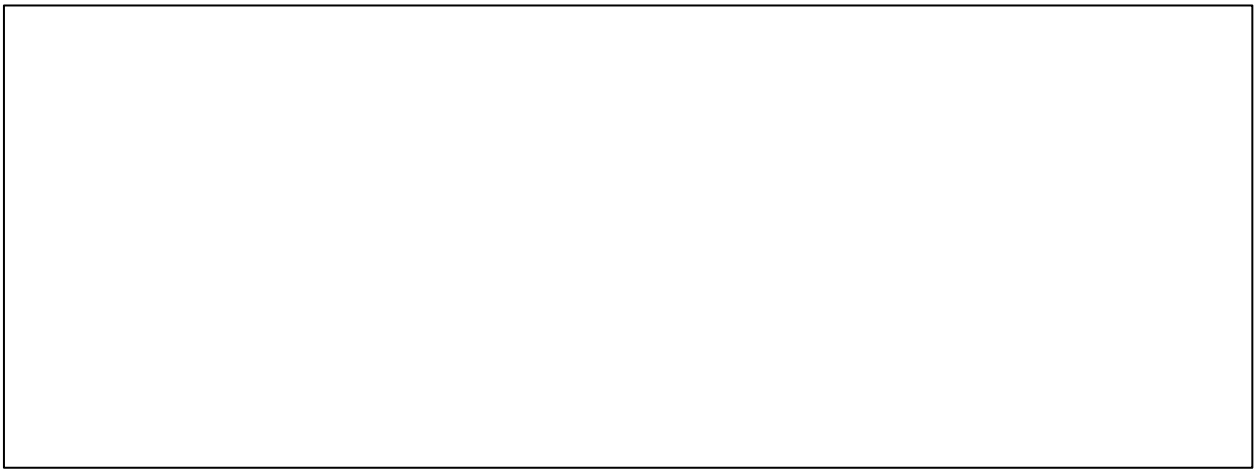
The $1.5 billion debt Drapeau wracked up having a baby was finally paid off 20 years later. Drapeau was responsible for much in his almost 30 years as mayor. He built Expo 67, brought the Montreal Expos to town, built a subway and a major performing arts centre. But he will always be remembered for his Olympic cost overruns and his famous forecast, his reputation tarnished but not ruined.

That's the fortunate thing about reputational risk. Consumers and the public have short memories. They are very quickly willing to forgive and forget as long as you can do something to manage the loss to your reputation. Except when it comes to sex. As long as your reputation isn't ruined by some sexual escapade you'll be just fine. Bill Clinton will always be remembered for Monica, John F Kennedy for Marilyn, and Anthony Weiner for his pictures.

As a supplier, it is unlikely that your reputation will be ruined for sexual impropriety and that is why I haven't coined a section of this book with the term Sexual Risks. (It is unlikely isn't it? Please tell me so.) In all other cases, it is possible to restore reputational risk although you may lose a client if you embarrass them.

Think about it

Before you go on, try to establish what risks are associated with what you plan on selling that will create a barrier to purchase.



Getting around risks

I mentioned previously how our customers at Synamics would have been horrified to realize how small we actually were and probably would not have done business with us had they know. As major telephone companies, that relied on us early on for operational solutions and later for strategic solutions we bore them substantial risk from those points of view and reputationally. While we engineered our solutions to virtually eliminate risks, there was one more thing we did to ensure that we could sell to the biggest telephone companies without them worrying about risks: We partnered with Nortel and Lucent, the world's two biggest telephone switch providers of the time.

We realized very early on that we got nowhere when we tried calling on clients all by ourselves. They wouldn't even talk to us. But Nortel and Lucent were busy with very big solutions and couldn't deal with the customized applications that we could create. Each of them actually needed us to meet customer needs that they couldn't meet, and we needed them to get into see customers. We were like a remora fish, attaching itself to a shark, eating the sharks' parasites and keeping it clean.

That strategy may not work for you, but there are a number of things you can do to enhance your ability to sell:

- Obtain endorsements and testimonials from celebrities and experts
- Build brand loyalty
- Align yourself with a brand with major image
- Obtain private testing results

- Sell through well-know retail stores and attach yourself to their image.
- Give away free samples
- Offer money-back guarantees
- Undergo government testing

Think about it

Before you go on, try to establish how you're going to overcome the risks you identified in the last work section.

Biases

It's not enough that you have to overcome costs of switching and the risks inherent in trying new things. You also have to overcome the biases that we all have toward trying new things. These cognitive biases are tendencies to think in certain ways that can be counter to what otherwise would be good judgment. Yes, we know you've invented the next best thing since sliced bread, but no matter how good it is, consumers have biases that cause them not to do that which is most rational or in their best interests.

The great thing about biases is that they are different for each customer. You can't presume that since you're selling to accountants all the time, they all have the same type of biases. No, that would be too easy. We have to make this innovation stuff really hard by putting in this new dimension. While all people will have different biases, there is some relief in that the cure for them all is the same. We'll get to the cure later on. First let's look at the biases that inhibit customers to change what they're doing and but innovative new products.

Decision making biases

Let's look at buying a vacuum cleaner. Think about all the various different types of vacuum cleaners out there. Some are battery powered and others need to be plugged in. Some roll around the floor and others stand up. There are bag less and bagged. And behind all of these choices are different manufacturers, some of which you have heard of and some of which you haven't. How on earth are you ever going to make a decision with all that choice?

It's no surprise to learn that we all have biases when it comes to making decisions. Those biases actually help make life easy for us as they manage to turn an impossible task into something that is relatively easy because we automatically eliminate certain options because of biases.

The unfortunate thing is that these biases which work for you when you are making a decision actually work against you when you are trying to sell something innovative. So let's look at some of the biases in decision making that will affect you.

1. **Ambiguity effect**

   If you have to make a decision where you don't have all the information you need to make that decision, you may suffer from the ambiguity effect. People tend to select

options where the probability of the outcome is known over options where the probability of a favorable outcome is unknown.

Imagine you have two choices. The first one is to keep using the coffee maker you have always used and drink the same coffee you have always drunk or to replace it with a Kuerig. Your brand of coffee isn't available in a Kuerig pod, though, so you have no way of knowing whether you'll like the types of coffee that come in that format. Since you're buying the coffee maker for your spouse as well and you don't know what she'll think of the new coffee, then you're really facing an unknown result. It's much safer to buy a replacement coffee maker identical to the one you have rather than buy something new and have an unsure outcome.

If you are marketing an innovative new product, you need to reduce the amount of ambiguity in the buying situation to be successful.

2. **Parkinson's Law of Triviality**

This one always makes me laugh. The number of times I've been in a meeting where a group obsesses over trivial issues while not addressing material ones is astounding. But this is human nature. If you're selling to a group in a company, it is likely that they will give disproportionate weight to trivial issues. As author and historian C. Northcote Parkinson put it, "The time spent on any item of the agenda will be in inverse proportion to the sum of money involved."

Think about buying a house. How much time do you actually spend looking at and evaluating a house purchase? If you are like most buyers, you'll visit one or two houses, maybe more and the first one that really hits all your sweet spots, you'll make an offer on. Same thing with buying a car. You won't spend much time test-driving them. Now these are both big-ticket items. Imagine though that you're buying a new pair of shoes or glasses. How many will you try on before purchasing? And how much does a house cost versus a pair of shoes?

There may be no way around Parkinson's Law of Triviality, but you can use it in your favor by giving your buyer something trivial to obsess about so they don't focus on material issues.

3. **Selective Perception**

On a subconscious level, when you're buying something innovative, you have to admit to yourself that what you're doing now isn't working. Part of admitting that what you are doing now isn't working requires you to admit that you might have made a sub-optimal decision in the past. This is where selective perception will come in. It is the tendency not to notice things that contradict your prior beliefs.

When you look at a new way of doing something and it contradicts your prior beliefs, you will tend to ignore the benefits of the new thing you are considering. This gives rise to the oft-repeated declaration: we've done it that way forever and it's always worked for us, so why would we change now?

The only way around selective perception with a buyer is to get them to acknowledge that they made the right decision when they made it but that something has changed. If they can acknowledge the change in circumstances, you might move them away from their selective perception.

4. **Conservatism Bias**

This bias really gets in the way of buying innovative products. It is hard to get people to change their minds because of a conservatism bias. People tend to favor prior evidence over new evidence or new information that has emerged. Take a look at the campaign to stop people from smoking. They used to use doctors in cigarette ads and people had to eventually come to accept that smoking wasn't actually all that good a thing.

This is one reason that innovation can take a generation to catch one. You need the Bandwagon Effect, another cognitive bias to move people off of their old beliefs and on to a new one. This is why there is a diffusion of innovation curve of the type popularized in Crossing the Chasm. The early adopters are necessary as references to the early majority to get on the bandwagon and begin to see the benefits of a solution or the existence of evidence to overcome a conservatism bias.

Status Quo Bias

I've reserved a special section all on its own for the Status Quo Bias. This is really a grouping of a number of biases that work in favor of the status quo and against any new innovative products. Status Quo Bias says that people are more likely to prefer the status quo to any new innovative alternative when given the choice. Here's why.

1. **Endowment effect**

You may have seen the show Hoarders on TV. What a lovely piece of television. Here we get to watch mentally ill people as they attempt to come to grips with their problems all the while feeling better about ourselves because we haven't made the same mistakes. People are hoarders because people ascribe more value to something because they own it.

There have been some great tests of this, several of which I have performed on willing groups of lecture participants. If you give someone a pen and then ask how much she would be willing to sell it for, the amount is twice as much as someone else (or them before they were given it) are willing to buy it for. It has gained value just by being owned.

The same endowment effect works for ideas and ways of doing things. If you have an idea or a way of doing something, it becomes part of you. It becomes part of your endowment. To get you to change the way you think or the way you do something would be to get you to give up a little part of yourself and lose part of your endowment. This is why consumers who have to give something up to get something don't just evaluate what they will gain from the new acquisition but also what they will lose by giving up the old.

2. **Loss Aversion**

The endowment effect is due to something called loss aversion. Humans are generally loss averse, and losses are weighed more heavily than gains. Think about the boxes you have in storage. In all likelihood, you have a number of childhood mementos, maybe your Teddy bear that you haven't looked at in years but that you cart around from house to house and can't bear to part with. Even though they are no longer part of your life, since you are loss averse, you won't even think of getting rid of them.

All of you good economists out there may start arguing with me at this point because one of the bases of economic theory is that people will make rational decisions and that their willingness to pay should be equal to their willingness to accept compensation to be deprived of a good. But this is one of the many cases where reality and theory don't mesh. People are emotional animals, driven not by logic but by emotion.

As a marketer, you can't get around loss aversion but knowing how it works and being able to test for it may enable you to create scenarios where buyers are more likely to not be effected by it.

3. **System Justification**

Most people need order and stability in their lives and are as a result resistant to trying out new things or to change. Think about yourself and your daily routines. Do you change them up all the time or keep them the same? How would you feel if you had to react to changes imposed upon you on a daily basis? Well, it in fact might become the new norm but perhaps not for a while.

People want to hold positive views about themselves, the people who are part of their lives and about the culture they are part of. As a result, they ascribe positive attributes about the things that are part of their lives and negative attitudes about things that are not part of their lives. Getting them to change and adopt something that is not a part of their lives is making them go against their own self-justification.

4. **Inertia – The Sloth Factor**

Finally we get to inertia or what I like to call the sloth factor. Making decisions is hard. Think about when you come home at the end of a hard day and your spouse asks you to make an important decision. It's tiring and you are likely to want to avoid making a decision. Or think about days at work where all you do is make decisions. It is exhausting and the last thing you want to do is to make another one.

I once did a whitewater canoe trip down the Mountain River in Canada's Northwest Territories. The last six days of the trip were constant whitewater. And I mean constant: The whitewater never stopped. You had to be on your toes mentally all the time, always making decisions. No time for your brain to rest and wander. While not physically exhausting I think that trip was the most mentally exhausting thing I have ever done.

Steve Jobs is the best example of the sloth factor (Mark Zuckerburg isn't far behind). Jobs wore the same jeans and black sweater every day. His rationale was that he spent so much time making decisions that the last thing he wanted to do was decide what clothes he would wear that day. Keeping his wardrobe simple enabled him to reduce the number of extraneous decisions he had to make.

And you're out selling something and in order to buy it, they have to spend time going through this long purchase process we are in the midst of describing. Is it any wonder that people don't want to innovate? They're exhausted from just getting through life. The last thing they need is to have to use mental power to evaluate what you are trying to sell them.

Your Own Biases

Did you think I was going to let you off easy here? It's not only your timid customer who has biases. You have them too as an innovator.

1. **Curse of Knowledge**

   I have suffered from this for years as an educator. Trying to teach someone something is ridiculously hard, partly because you already know it and partly because you have to figure out what they don't know or what they don't understand so that you can teach it to them. Simply put, the curse of knowledge is a cognitive bias that makes it difficult for better-informed people to see things from the perspective of people who are less informed.

   I'm having a good laugh at this one because it is a central theme to this book. I'm trying to help you (the more informed innovator) understand what your customer (the less informed buyer) is going through. I'm trying to help you gain perspective so you can do a better job innovating. When you're trying to sell something to someone, you don't have a good idea of what he or she don't understand and why he or she don't get why your product is better than what they have now and part of that is because of the curse of knowledge.

2. **Pro Innovation Bias**

   Well, of course, you have a pro-innovation bias. You're an innovator. You're one of the technical enthusiasts or visionaries who loves to innovate. You live to innovate. The thing is your customer is not likely to think that way. And, in fact, if you are at all self-reflective, you'll realize that you have a pro-innovation bias only for certain things in

your life. In many other things, you're just like your customer: ambivalent if not hostile to innovation.

Recognize that while you are pro-innovation in the area you are innovating, your customer isn't likely to match up directly along your lines.

3. **Self Serving Bias**

A self-serving bias is the tendency to need to perceive yourself in an overly favorable manner. People tend to view what they have created in an overly favorable manner. You've created a company or a product and you think it is the most beautiful thing that has ever been created. Well good for you, it's natural to think that way. The creative process goes something like this:

a. This is awesome
b. This is tricky
c. This is shit
d. I am shit
e. This might be OK
f. This is awesome

Just because you created it and think it's awesome doesn't mean that other people will think the same way. Maybe your mother will, but haven't we dealt with why it isn't good to ask her what she thinks about your invention? You need to think what you've done is awesome just to be able to get through the day, but don't be surprised if people around you don't think exactly the same way.

4. **Confirmation Bias**

Meanwhile, while you're out there doing market research or selling your new invention, you're highly subject to confirmation bias. This is the tendency to focus on information that confirms your own perceptions and ignore things that don't confirm them. It means that you are unlikely to listen to negative comments from customers and have trouble adjusting to their needs.

But being able to understand the negative reactions is critical to successful product innovation. It is a part of the empathy that is needed within a design-thinking context. It is why under design thinking you need to create and introduce prototypes. It's how you

successfully pivot under a lean startup methodology. Being self-critical is one of the most important skills in being a successful innovator. As I've said before, if you listen very carefully, your clients will tell you what business you are in. That means that you must get rid of any conformation bias.

5. **Overconfidence**

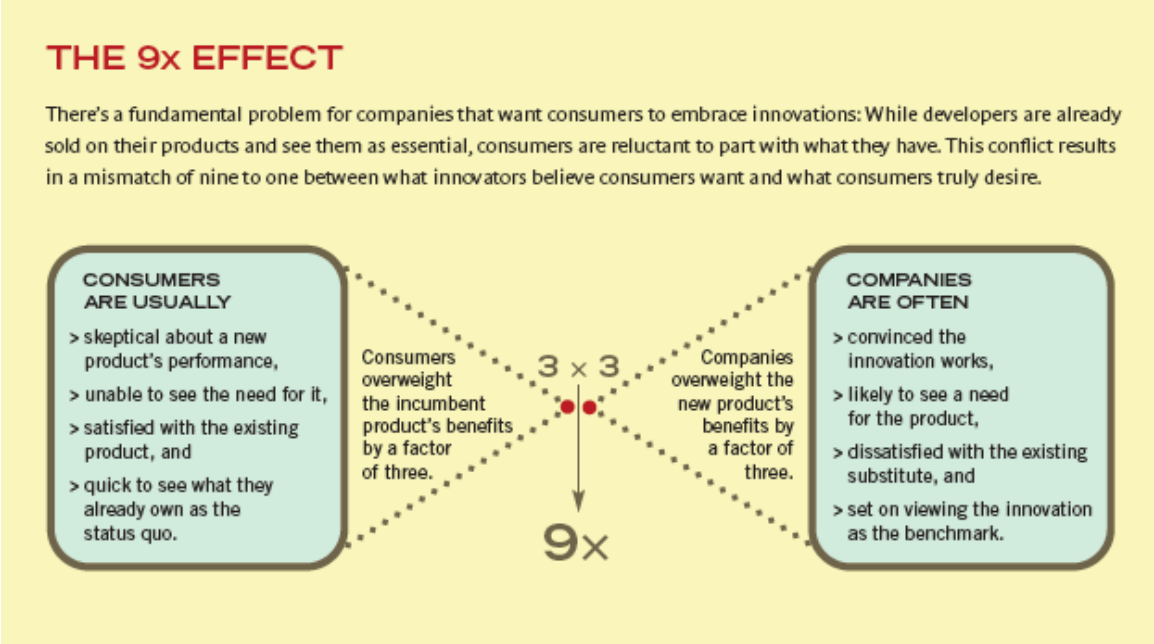
   I'm not sure whether this is a bias or just the life of being an entrepreneur. After all you had better be confident if you're going to try to take a totally ambiguous situation and try to earn money from it. But the overconfidence effect is a bias where someone's confidence in their own judgments is greater than the objective accuracy of those judgments.

   It saddens me that I see this on a regular basis. I see entrepreneurs who you just can't mentor. You can't question what they are doing and when you attempt to criticize it, the criticism doesn't resonate. I watched a good TED Talk recently by the guy who runs Google X, the experimental division of Google. They encourage people and reward them for killing projects. They have sessions where they actively try to kill projects, all in the pursuit of enthusiastic skepticism, the thing you need most to compensate for natural overconfidence.

The 9x Effect

So what do we end up with in terms of all these biases? We have the situation where you as the innovator are overvaluing the benefits of the innovation and at the same time the potential customer is overvaluing the benefits of what they already have.

The net effect of your biases and your buyers' biases is a gap that is known as the nine times effect.



This chart that I stole from somewhere (I think it was HBR) shows that there is "a mismatch of nine to one between what innovators believe consumers want and what consumers really desire."

So how do you deal with this? What do you do about it? To me it's very simple. You have to create a product that has on whatever dimension you're going to compete, nine times the benefits of the currently used alternative.

SAAS industry

A great example of successfully exploiting the nine times principle was the SAAS industry. Take Salesforce as an example, the customer relationship software company as we've done before.

- They reduced implementation costs by being online.
- They reduced risks and any decision-making biases by enabling you to try it out for free.
- They reduced the status quo bias by reducing the need to make a long-term decision.
- They radically reduced the speed of acquisition and cost of service even though they may not have had the most sophisticated system when they first started.

In essence, they eliminated the nine-times effect by being more than none times better than competitive products and it succeeded. And this is what you have to do: You have to be ten

times better at something. The critical issue is what you choose to be ten times better at. And that is the next subject that we'll discuss: competitive differentiation.

Think about it

But before you go on, try to establish whether there are nay egregious biases that you face, what they are and how you're going to overcome them.