

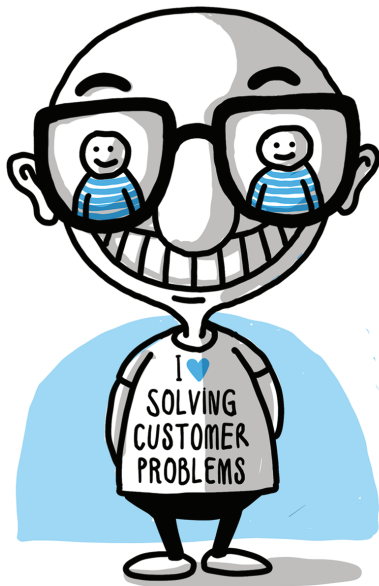


STEP 1

Market Segmentation

In This Step, You Will:

- Launch the structured DE (Disciplined Entrepreneurship) process.
- Brainstorm a wide array of potential customers and markets for your business.
- Narrow down your list to your top 4–10 markets.



SEEING THE WORLD
THROUGH THE EYES
OF THE CUSTOMER



SEEING THE WORLD
THROUGH THE EYES
OF THE COMPANY

For success in entrepreneurship, there are some glasses that are better than others.

Why This Step, and Why Now?

It is crucial to start the process with a focus on a target customer. Everything else about your business will be based on that focus. This step will provide you with a clear framework to direct your primary market research in the steps that follow.

Let's Get Started

Once you have completed Step 0, Getting Started, you should have an idea or technology that answers the question “Is this something the world could benefit from, and is it something I do well and would love to do for an extended period?” and an initial team excited to start the journey to make this happen. (Note: Throughout the 24 Steps, I will use “you” to refer collectively to your team.)

Now you will begin the 24 Steps by taking that idea or technology and brainstorming a wide array of potential customers who might be interested in some application of it. Then you will choose a manageable subset (depending on time and other circumstances, I suggest 4–10) of top opportunities and do in-depth primary market research (PMR), where you directly interact with potential customers, to learn more about them.

The First Commandment: The Single Necessary and Sufficient Condition for a Business

In every one of my courses, I start the same way: emphasizing the most foundational first principle of entrepreneurship. I ask, “What is the single necessary and sufficient condition for a business?” Many say “a new idea,” which is not correct because many people have new ideas but don't have a business. Neither is it a product, a technology, a customer need, a business plan, a vision, a strong team, a CEO, money, investors, a strategy, competitive advantage, or company values. While all of those are great things for a business to have, none of them is the right answer.

The single necessary and sufficient condition for a business is **a paying customer**. This is the first and most fundamental commandment of entrepreneurship (Figure 1.1).



Figure 1.1: The first commandment of entrepreneurship.

The day someone pays you money for your product or service, you have a business, and not a day before. This simple but powerful truth will keep you focused on what is important. You should not define a business as a product, because if nobody buys your product, you simply do not have a business. The marketplace is always the final arbiter of success.

Now, just because you have a paying customer does not mean you have a *good* business. To have a good, sustainable business, you will need to gain enough customers paying enough money within a relatively short period of time to more than cover your costs and become economically sustainable.

There are some temporary circumstances where exuberant investors might fund you for a while, but they want a very clear line of sight to paying customers and validation that those paying customers are real and will make the business profitable. Understand that such investors are taking great risks and they will expect outsized returns, so you will pay dearly for taking such investment. Depending on your venture, that might work well for you, or it might not.

In any case, entrepreneurs need to be focused on paying customers because paying customers will provide the lifeline of cash to keep the new venture going. The nature of a startup is that you have few resources, so every action you take must be hyper-efficient and focused.

Therefore, you will not start by building a product or recruiting salespeople to sell your as-of-yet unproven product. Instead, you will take a customer-driven approach by finding an unmet need and building your business around it.

Three Key Criteria to Be Met If You Are to Create a New Market That You Will Dominate

Creating an innovative product where no market currently exists is essential to the success of an innovation-driven startup. Creating new markets is a very hard thing to do, so if you do it, you should be appropriately rewarded with a high, if not dominant, market share that you can use as a basis for future expansion. Being a “me-too” company in an existing market is not the goal, and you have to be careful about slipping into that state given your limited resources.

To create a scalable company in a newly defined market space requires not just hard work but also for you to work smart. You will have to be relentlessly focused on a well-defined, winnable, and appropriately sized initial target customer (i.e., not too big and not too small) that you can grow your business from. A target customer or “market segment” is a group of potential customers who share three fundamental characteristics:

1. They buy the same product.
2. They buy it in the same way (i.e., same use case, value proposition, channel).
3. There is word of mouth (WOM) of some sort between them; that is to say, that they significantly influence each other.

A market segment should have all three characteristics and not just the first one. This is the beginning of building deep focus and discipline into your process. Focus is an absolutely critical skill for an entrepreneur, and as you will find throughout these steps, focus is difficult. You must work hard to identify and understand market segments through initial brainstorming and then, even more importantly, PMR. Relying on gut feel, anecdotes, or third-party analysis is basically guesswork and is insufficient if you are creating new markets in a disciplined manner that optimizes your odds of success. You must base your decisions on firsthand experience and be more evidence-based and systematic.

WHEN “PAYING CUSTOMERS” LEAD YOU ASTRAY (I.E., BEING UNINTENTIONALLY UNDISCIPLINED)

While paying customers ultimately determine whether your product is successful, you may encounter two common pitfalls if you do not focus enough on creating a new carefully defined market.

The first is “selling to everyone,” which is the idea that you, as a fledgling startup with little to no resources, can make products that fit the needs of anyone you run across. While it is true that without a paying customer, you do not have a business, that does not mean you take any paying customer! The disciplined entrepreneur has a plan and takes the right customer because they have a market segment focus, rather than an individual customer focus.

Here is an example. Let’s say you have invented a new fabric technology (i.e., polymer) that gives you the ability to waterproof fabrics better than anything on the market. You first hear from your friend Sally, who read in the newspaper that camping equipment is a lucrative market, so she suggests you sell tents. Your cousin Joe chimes in; he wants waterproof underwear. A neighbor asks you to make easy-to-clean stuffed animals for their children.

To design and execute any of these products will take more time and resources than you probably have. If you start production on one product and find there aren’t enough customers to make your venture profitable, you almost certainly will not have the resources to keep making products until you find a profitable market. Instead, you will find the right opportunity by intelligently and ruthlessly defining market segments at as granular a level as possible, while keeping them just big enough to be meaningful. To be successful, you will have to select a market to focus on and also deselect other markets that you will ignore, at least for now. I will show you how in Step 2.

The second common pitfall is the abstract paying customer scenario. If you are simply basing your Market Segmentation on secondary research you find on the Internet and then making calculations and conclusions on this, you are not being disciplined enough; you are simply having fun with spreadsheets. This may seem productive but falls under the category of “never confuse activity with progress” (Figure 1.2). In this scenario, the entrepreneur reads a report that someone else has written about a large market, but the entrepreneur has done little to deeply understand this market firsthand. This can be represented in this painfully simple fictional scenario as follows:

The Internet says China has 1.5 billion people. They all have teeth, so the market size is 1.5 billion customers. I’ll build a toothbrush for the Chinese market, and because we have a great

toothbrush, we will easily get 0.1 percent market share in the first year (what a conservative number that is!). If each person buys three toothbrushes a year, we could sell 4.5 million toothbrushes per year, and if we sell them for \$1 each, we have \$4.5 million in sales the first year with these conservative assumptions. And we have only just begun, because look at how much room we have to grow in terms of market share!

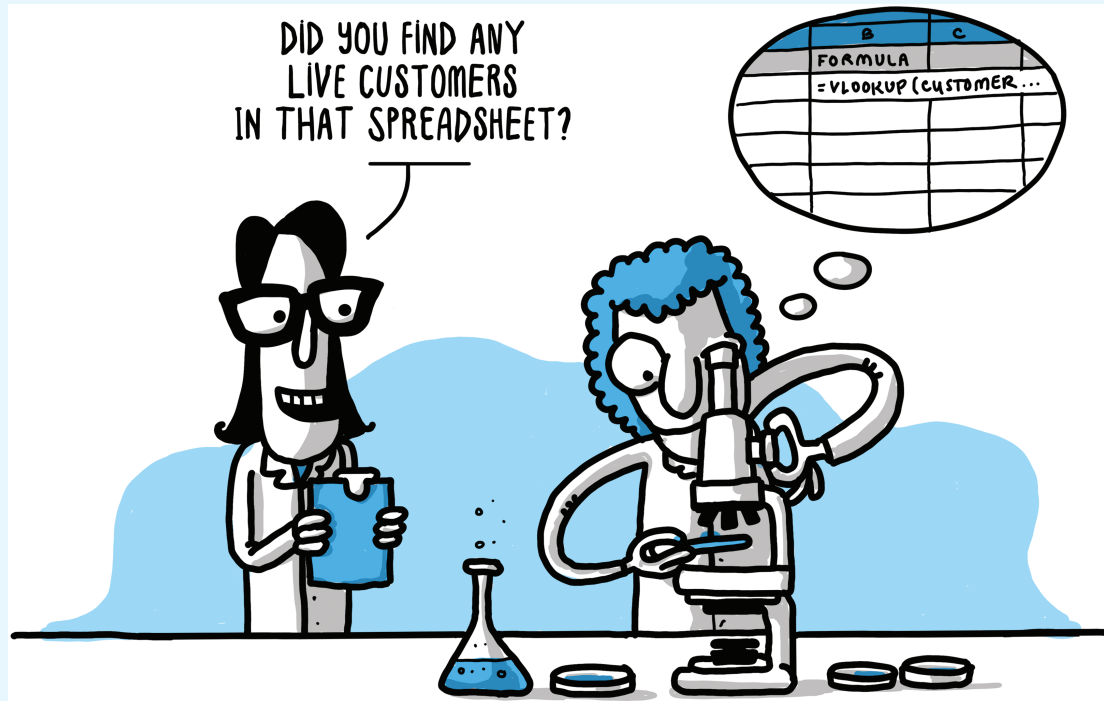


Figure 1.2: You need to directly interact with real live customers before making any decisions. Hence the need for Step 1A, Primary Market Research, to complete this process.

As mentioned, I call such a high-level market analysis “fun with spreadsheets,” because you have not demonstrated in a compelling manner why people would buy your product or why your market share would increase over time. As I discussed in Step 0, you are at a general level and not a level of sufficient specificity at all. You also have not validated any of your assumptions by learning directly from customers—you probably haven’t even been to China. After all, if entrepreneurship were this easy, wouldn’t everyone sell toothbrushes to China?

(Continued)

Big companies with lots of resources can afford to work hard to gain incremental market share, but entrepreneurs don't have the luxury of resources. Don't get ensnared by small percentage of a big market syndrome.

Again, to reemphasize the key point here, take your resources and apply them to a narrow, carefully defined new market that you can dominate. Focus, focus, focus.

Complex Paying Customers: Primary versus Secondary Customers and Multi-Sided Markets

Thus far, I have used “customer” to refer to the entity—such as a household, organization, or individual—who pays for, acquires, and uses your product. Breaking this down to be more precise, within the broad definition of a customer, there is the end user, who ultimately uses your product, and the economic buyer, who makes the final decision about whether to acquire the product. The end user and economic buyer can be the same person, depending on the situation. You will dive into this in greater detail in Step 12, Determine the Customer's Decision-Making Unit (DMU), but for now I want to briefly mention a couple of more complex cases where a customer is not simply a singular entity.

This first of the two more complicated cases is when your business model calls for separate primary customers (end users, i.e., the one who directly uses the product) and secondary customers (economic buyers, i.e., the one who pays the person who produces the product) in order to make money. Often, these businesses are structured where the end user pays below cost, or gets a product for free, and an economic buyer pays for access to the end user and/or the end user's information. For instance, Google's search engine is free to use, but Google sells advertisements on search result pages to make money. Google's ability to provide advertisers with keyword-targeted ad placement and demographic information about search users further enhances Google's value proposition to advertisers.

To simplify things and to keep the process moving, you should note but not worry about this primary/secondary customer delineation and simply focus on the end user. If the end user does not gain value from the product, there will be no economic buyer. Again, you will dig into the nuances of the difference between the end user and economic buyer customers in Step 12 and thereafter. But for now, just focus on the end user and keep moving.

The second case is called a two-sided or multi-sided market (it can be more than two), where you need multiple target customers for your business to exist. Rideshare company Uber is a good example, because it needs both drivers and riders (supply and demand) to participate to be successful.

If you have a multi-sided market, you will complete each step of the 24 Steps once for each side of the market. But you will likely find through your PMR that one side of the market is harder to

establish and therefore more critical to win for your business to succeed. I recommend that you start by focusing your efforts on the more difficult side first. It is usually on the demand side, but not always. For instance, when Uber started, there were lots of drivers (supply) but not enough riders (demand). In another case, in my classroom, there was a team building a new venture providing online one-on-one training of upper-middle-class, middle school-aged (10–14 years old) students by professional artists from places like Paris and Barcelona. In that case, it was easy to get the demand (students and parents) but they had a much bigger problem getting the artists, so it was the supply in this case.

How to Do a Market Segmentation

Step 1A: Brainstorm

“I already have my idea. Why do I need to brainstorm again?”

You probably have brainstormed many ideas (or technologies) and settled on the one you are now pursuing. You have not brainstormed the many potential end users who would benefit from your idea (or technology). You may think there is one obvious end user, but I have never seen an idea or a technology where it is not possible to brainstorm a multitude of end users, nor one that would not benefit from this process. The Market Segmentation’s brainstorming stage is designed to sharpen your understanding of who might benefit from your idea.

Do not focus on viability or the solution at this point; rather, focus on getting as long a list as possible of potential people who would benefit from your idea. More is better at this stage. Let a thousand flowers bloom! You will narrow it down later in the process.

Often some of the most interesting initial or what you will call Beachhead Markets in Step 2 exist on the fringe of the spectrum and are overlooked by others, so think broadly. Wild ideas are welcome and encouraged at this point. Start by brainstorming a wide array of market opportunities. Include even the “crazy ideas” that you think are longshots, because they are helpful in expanding the boundaries of possibilities to where some of the most interesting opportunities might exist.

Even if you think you know the best initial solution, just note it and keep brainstorming. Don’t get fixated on it. If it is the best one, it will rise to the top in the end. You need lots of other options to do a comparison at this point. This is an exercise you should do with your team. No idea is a bad idea. I encourage my students to use improvisation techniques where the first tenet is always to say “yes” to any idea. Being open-minded and creative at this stage is essential.

I make it a friendly competition in my classroom where whoever can come up with the most ideas wins a prize. And the person with the craziest idea gets a prize too.

While you will do much more of this later, talking about your idea or technology with potential customers even at this early stage will give you clear and accurate feedback for your brainstorming of possible Market Segmentation. In general, forget the unenlightened idea of “stealth mode.” Stealthy is unhealthy, as HubSpot co-founder Dharmesh Shah famously told our students. Socialize your idea as much as possible.

Remember, the goal in this stage is to open the aperture as far as possible and let the sunshine of all the potential markets shine in. And make sure to do this as a team with everyone’s engagement and input.

Step 1B: Narrow

You have by now identified numerous potential end users and applications for your idea or technology. It is not possible to analyze all of them, so you will have to narrow down the field to what you believe are the best 4–10 candidates so you can do a deeper dive to compare them and determine your potential first market.

How do you narrow the field down? My suggestion is that you start by voting ideas “off the island,” to evoke the long-running reality TV show *Survivor*. Look at the ideas you have with a critical eye, based on a set of filters, to eliminate the ones you feel are not a good fit.

What filters should you use? People usually start with analytical market analysis filters (e.g., How big is the market? How strong is the competition? How strong is our value proposition? What is the ability of the customer to pay? How long will it take? What types of resources will I need?). While all of these are good questions, none of them are the *first* question you should ask. The first question you should ask is a personal filter question: Is this market segment one I could get really, really excited about and dedicate the next six years of my life to serving? Will I be proud to be associated with serving this marketplace? If not, don’t do it. You will not last. Going back to a point in the previous chapter, you are simply seeking to be a profiteer and that will not last.

Once you have eliminated the markets you would not be excited about serving, now use the analytic lenses to determine your priorities and filter down the field to 4–10 candidates.

Figure 1.3 highlights that after the personal filter, you can apply the business filter, which is focused on the competitive and strategic considerations of the markets. In the next filter, which I call the external filter, you will consider how many additional resources you will need to achieve your goal in the marketplace and whether it is attainable. This includes teammates, partners, and capital. The final filter I list is the execution filter, which is a risk assessment of the market. How many things need to go right for you to win this market segment, and what are the odds of all of them being successful?

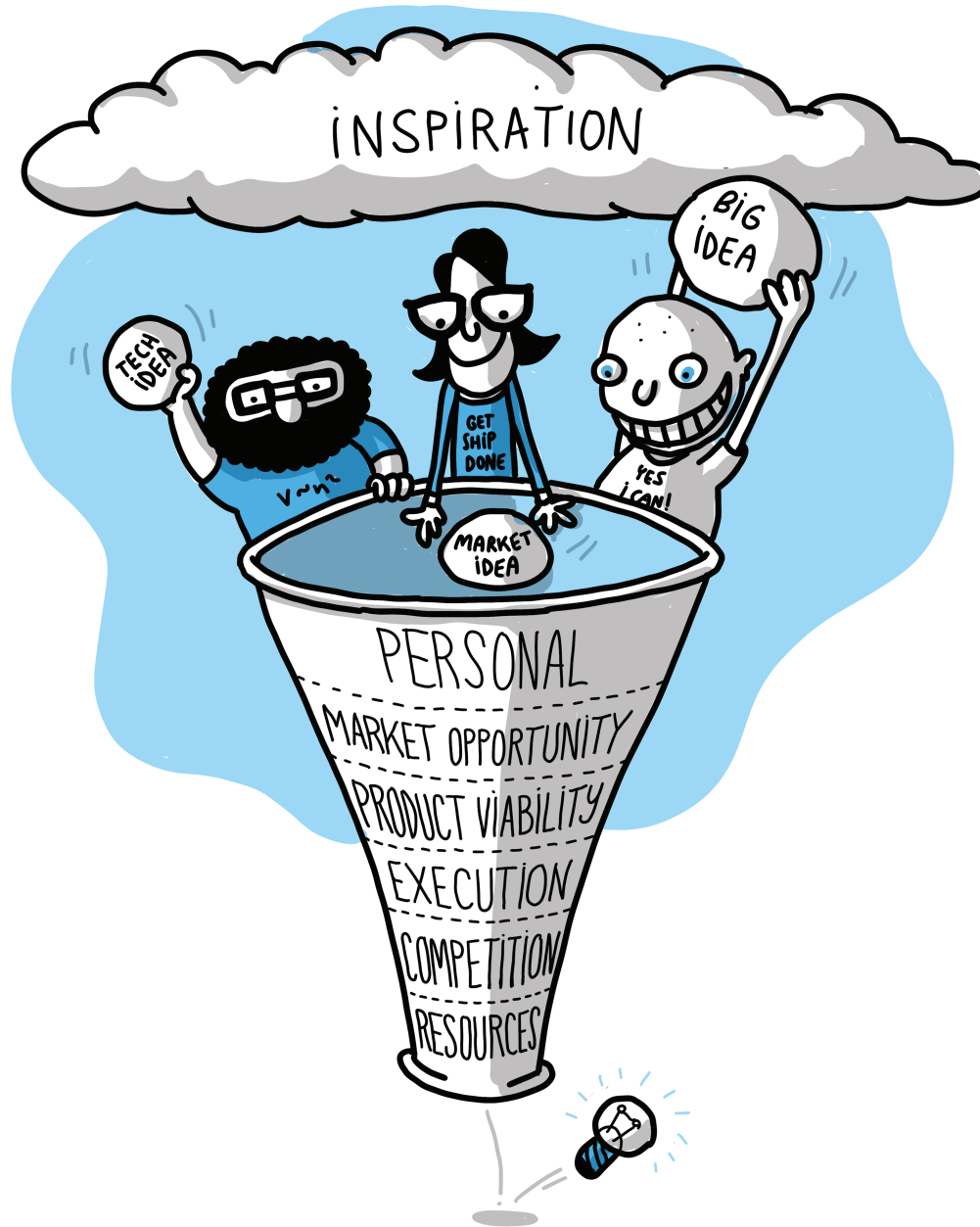


Figure 1.3: Filters for prioritizing and filtering out Market Segments.

In this section, you will not be as rigorous as you will be in Step 2 when you narrow the field of 4–10 down to one. But it is helpful now to see the criteria that you will use going forward, because they might be helpful to provide more specific structure to your filtering discussion.

In *Inside the Tornado*, Geoffrey Moore identifies five criteria that the company Documentum used to narrow down its list of 80 potential markets. I have expanded this number to eight by splitting the first criterion into two parts, and adding two of my own to incorporate the passions of your founding team into the discussion.

1. **Is the target customer well-funded?** If the customer does not have money, the market is not attractive because it will not be sustainable and provide positive cash flow for the new venture to grow.
2. **Is the target customer readily accessible to your sales force?** You want to deal directly with customers when starting out, rather than rely on third parties to market and sell your product, because your product will go through iterations of improvement rapidly, and direct customer feedback is an essential part of that process. Also, since your product is substantially new and never seen before (and potentially disruptive), third parties may not know how to be effective at creating demand for your product.
3. **Does the target customer have a compelling reason to buy?** Would the customer buy your product instead of another similar solution? Or is the customer content with whatever solution is already being used? Remember that on many occasions, your primary competition will be the customer doing nothing.
4. **Can you today, with the help of partners, deliver a whole product?** The example that I often use in class is that no one wants to buy a new alternator and install it in their car, even if the alternator is much better than what they currently have. They want to buy a car. That is, they want to buy a whole functional solution, not assemble one themselves. You will likely need to work with other vendors to deliver a solution that incorporates your product, which means that you will need to convince other manufacturers and distributors that your product is worth integrating into their workflows.
5. **Is there entrenched competition that could block you?** Rare is the case where no other competitors are vying to convince a customer to spend their budget on some product to meet the identified need. How strong are those competitors, from the customer's viewpoint (not your viewpoint or from a technical standpoint)? Can the competition block you from starting a business relationship with a customer? And how do you stand out from what your customer perceives as alternatives?
6. **If you win this segment, can you leverage it to enter additional segments?** If you dominate this market opportunity, are there adjacent opportunities where you can sell your product

with only slight modifications to your product or your sales strategy? Or will you have to radically revise your product or sales strategy to take advantage of additional market opportunities? While you want to stay focused on your Beachhead Market, you do not want to choose a starting market from which you will have a hard time scaling your business. Geoffrey Moore uses the metaphor of a bowling alley, where the Beachhead Market is the lead pin, and dominating the Beachhead Market knocks down the lead pin, which crashes into other pins that represent either adjacent market opportunities or different applications to sell to the customer from your Beachhead Market.

7. **Is the market consistent with the values, passions, and goals of the founding team?** You want to make sure that the founders' personal goals do not take a back seat to the other criteria presented here. In the case of a company I co-founded, SensAble Technologies, we wanted to “get liquid” (go public or get bought) within four to five years, a relatively short time horizon for the type of technology we created, because co-founders Thomas and Rhonda Massie wanted to move back to Kentucky, where they were from. Therefore, an important factor for us was whether we could show results in an acceptable time frame in whichever market we chose.
8. **How quickly can you win this market?** You have to find markets that you can win in a reasonable time frame consistent with your personal timelines. You do not want to get stuck in a market that could take years to win.

Start by asking these questions at an industry level but don't spend too much time at that level. What really matters is the end user and the specific job they are doing.

Your limiting factor is time—you will research each of these markets in depth, and you do not have time to consider an unlimited number of options. Four to 10 good market segment opportunities are sufficient (10 is too many in most cases and usually 4 to 6 is a good range).

That being said, don't rush the process and lose the benefits of full team engagement. Each time, before you eliminate a market segment, allow time for the group to discuss to make sure the group has all the information before making such a decision. This discussion can be a powerful learning and alignment process. Lastly, once the obvious candidates are removed, have the group vote on the remaining market segments to get a prioritized list.

Step 1C: Build a Market Segmentation Matrix

Now that you have narrowed your market opportunities, build a framework to analyze the top market segments in order to organize your research. Balance comprehensiveness with the benefits of simplicity. Figure 1.4 outlines several dimensions to consider for each market segment, and provides a sample template to organize the information. As with all the templates in this book, a digital copy of this is available at www.d-eship.com.

Market Segmentation Matrix Starter Template

Market Segment Name					
End User					
Task					
Benefit					
Urgency of Need					
Example End Users					
Lead Customers					
Willingness to Change					
Frequency of Buying					
Concentration of Buyers					
Other Relevant Market Segment Considerations					
Size of Market (# of End Users)					
Est. Value of End User (\$1, \$10, \$100, \$1K, etc.)					
Competition/Alternatives					
Other Components Needed for a Full Solution					
Important Partners					
Other Relevant Personal Considerations					

Figure 1.4: Market Segmentation Matrix with definitions.

Market Segmentation Matrix Row Definitions

1	Market Segment Name	Carefully name the market segment so it appropriately and precisely captures the group you want and no more; it is okay to be general at first, but you will have to narrow this down in time to make real progress.
2	End User	This is the person who is actually using the product, not the economic buyer or the champion (more on this in Step 12)—even if you are selling to a company or a general organization, you want to list here the people in that company who will be using your product.
3	Task	What exactly is it that the end users do that you will significantly affect or allow them to do that they could not do before?
4	Benefit	What is the benefit that you believe the end users will get?
5	Urgency of Need	What is the level of urgency to solve the problem or capture the new opportunity for the end user?
6	Example End Users	Who are examples of end users that you can, have, or will talk to, so as to validate your perceptions of this market segment?
7	Lead Customers	Who are the influential customers (i.e., lighthouse customers) where, if they buy the product, others will take note and likely follow?
8	Willingness to Change	How conservative is this market segment? How open are they to change? Is there something to force change (e.g., impending crisis)?
9	Frequency of Buying	How often do they buy new products? What does their buying cycle look like at a high level?
10	Concentration of Buyers	How many different buyers are there in this market segment? Is it a monopoly? Oligopoly (a small number of buyers)? Or many competitive buyers?
11	Other Relevant Market Considerations	This allows for customization of your segment for relevant considerations such as “high employee turnover,” “very low margins/commodity,” “high-growth industry,” “high virality effect” (i.e., word of mouth), etc.
12	Size of Market (# of End Users)	Estimation of the number of end users to a relevant range (10s, 100s, 1Ks, 10Ks, 100Ks, 1Ms, etc.).

Figure 1.4: (Continued)

13	Est. Value of End User (\$1, \$10, \$100, \$1K, etc.)	A first-pass estimate of the value of each end user, again to a relevant order of magnitude so you can make some relative decisions now (you will do a deep dive into this and other numbers later).
14	Competition/ Alternatives	What will be your competition from the end users' perspective? Include the "do nothing" option as well.
15	Other Components Needed for a Full Solution	Since most customers will only buy a full solution and not an individual component that they have to assemble into a full solution, what other elements are needed to construct a full solution to achieve the benefits above? These are the complementary assets that you do not currently have but would need to build or acquire to give the end user a full solution.
16	Important Partners	Who are the partners or distributors you will have to work with to fit into the end user's workflow (e.g., data must come out of vendor A's system and then be picked up at the end by vendor B's system) or business processes (e.g., the end user gets all his or her product via distribution channel C)?
17	Other Relevant Personal Considerations	In many Market Segmentation analyses, there are additional important factors that should be considered. These could be things like where the market segment is geographically centered, whether it matches the values of the founding team, existing knowledge and contacts in market, etc.

Figure 1.4: (Continued)

Step 1C: Fill Out a Market Segmentation Matrix with Primary Market Research

Now that you have narrowed your market opportunities and built out a framework to analyze the top market segments so as to organize your research, you now have to fill in that matrix. Balance comprehensiveness of your research with the benefits of simplicity.

Figure 1.4 outlines several dimensions to consider for each market segment, and provides a sample template to organize the information. While I have found this to be comprehensive, you may want to add additional rows for special considerations like regulatory environment, special resource requirements or constraints, or macro-trends.

Once you have a basic structure, it is time to do primary market research (PMR), a fundamental skill of great entrepreneurs. PMR is when you directly interact with your potential market segment,

the end user, but also the other stakeholders in that ecosystem. Interacting directly with customers will help you get a better sense of which market opportunity is best in a way that you never can get through secondary market research. Secondary market research is where others have done PMR and you simply read summaries of what they have discovered.

This is especially true for innovation-driven entrepreneurs because you are identifying a new market opportunity for a product that does not yet exist, so you will not be able to rely on Internet searches or on reports from research firms. If there is already a market research report out there with all the information you need, it is probably too late for your new venture. If that is the case, you have probably missed the window of opportunity—someone else has beaten you to the market. You only get unique understanding and insights from PMR.

Unfortunately, there are few shortcuts in this process. While you should find out what you can about customers and markets via secondary market research before you talk to potential customers, it is impossible to overstate the importance of doing direct customer research.

How to Talk with Potential Customers I have found this whole topic so important to entrepreneurs and so poorly understood by them that I will dive deeply into more specifically how to do PMR in Step 1A. But I first want to provide some guidance that is specific to these early steps when you are learning from potential customers.

When you talk with potential customers, you are in full empathetic listening mode. You should encourage the flow of ideas; don't restrain them, steer them in any direction, or try to gain a commitment. You must be in "inquiry mode," not "advocacy mode"—although the latter will come later in the process. If the potential customer senses you are trying to sell them something, they will change their behavior; they will either say little or give you biased feedback rather than providing you with new, innovative ideas for markets. You must focus on identifying the problem and opportunity at this point and not falling in love with your idea or your product.

In this vein, you should not count on your customer to design your product or tell you the answer to their problems. The goal of this research is to understand their pain points, and later design a solution that will be of great value to them. To do so, you will need to thoroughly understand the underlying issues and sources of opportunity, whether by speaking with them (i.e., interviewing), watching them as they work (i.e., primary observational research), doing the job yourself (i.e., immersion), seeing their responses to carefully designed tests (i.e., A/B testing), or following their digital dust (i.e., tracking what they are clicking on when they visit your website, i.e., "click stream," which can also be a form of A/B testing). Actions are more important than words, because people sometimes say things that are contrary to what they actually will do.

You will want to talk with as many end users as possible, but individuals who are not end users may also give you valuable advice or may point you in the right direction. You may even find that you misidentified the end user in your segmentation.

There are a few key factors that are integral to collecting accurate information:

- You must have a high level of intellectual curiosity.
- You must be fearless about getting on the phone, in the car, or on a plane to pursue this information.
- You must listen and get people to talk.
- You must be open-minded and unbiased, and never presuppose a solution (inquiry, not advocacy).
- You must have the ability to explain what the essence of your proposed offering might look like while also being flexible.
- You must have the time and patience to devote to this important step.

There are three important caveats when conducting your PMR:

1. You do not have “the answer” for your potential customers and their needs.
2. Your potential customers do not have “the answer” for you.
3. Talk with potential customers in “inquiry” mode, not “advocacy/sales” mode. Listen to what they have to say, and don’t try to get them to buy anything.

Again, I have included a more in-depth PMR guide in Step 1A that will help you practice focused, productive PMR.

How Long Should I Spend on Market Segmentation?

Give your full attention to this research for at least a few weeks (and maybe much longer if your situation permits) but certainly long enough so you and your team feel you have been able to make valid comparisons of different segments and you are confident, but not certain, about moving forward. The amount of time you spend will depend on a number of variables but most importantly on how effective your team is at getting PMR. You should spend enough time so that you can fill out the matrix for all your top segments with some accuracy. Don’t just search the Internet and debate this in your office.

You will not find a singular perfect market segment—this is not a math problem with a deterministic singular answer. There will almost surely be multiple paths to success and none will be perfect to start with.¹ Fill out the matrix enough so your team is comfortable and then start moving forward, iteratively updating it. Remember, the 24 Steps is a sequential but not a linear process.

¹ I highly recommend reading or listening to the book *That Will Never Work* by Marc Randolph. No original idea or plan in entrepreneurship is completely correct. You just hope it is correct enough to jump-start the process.

Most of all, you learn nothing without action in entrepreneurship. Do not let yourself fall into “analysis paralysis.” Make the best assumptions you can and then test them. Do not let the Market Segmentation be a never-ending process. After all, this is Step 1—you have 23 more steps to go! You will revisit this step as you get more information from the rest of the steps.

Other factors that will affect the time you have to spend on Market Segmentation:

1. The speed at which your target market is moving. If there has been a dramatic disruption in your target market and others are swarming in, you will have to move quickly.
2. If you have a strong competitive advantage, you will have more time. In the example below, we had a strong competitive advantage at SensAble Technologies, which gave us more time and space to do this step.
3. The personal needs of your team.

What Should I Come Out of Step 1 With?

You should come out of this step with three major achievements. While the first one is more tangible, the second two are even more important as they will pay dividends over and over again throughout the whole process. Here are those achievements:

1. **A solid analysis.** The matrix you fill out will give you fundamental information to move forward in an evidence-based manner, providing the foundation for the overall process.
2. **A mindset change.** Humans tend to focus on tangible things in front of them. It is absolutely human nature to want to focus on a tangible product as opposed to a more abstract customer and their needs and use case, but that is not the right mindset. Seeing the world through the eyes of the customer—as you saw in the initial illustration in this chapter—should correct this and give you the perspective of building your new venture from the customer back and not from your product out. This is incredibly important. Remember, fall in love with solving the problem and not with your product.
3. **The beginnings of a coherent and cohesive team.** This process is only as good as the team who will execute it. In this relatively fun and easy step to do Market Segmentation, you will be gently stress-testing your team to see if you can work together and debate issues and then ultimately come together in a unified fashion. If you cannot, then you should seriously think about adjusting your team. It is going to get a lot harder going forward. If this step is to be successful, you should have built a coherent vision for where you are going and also built cohesion within your team. Team is paramount above all else.

EXAMPLES

This book has various examples from class projects and early-stage ventures that highlight different aspects of each of the 24 Steps. In this revised and expanded edition, alongside these examples, you will also get to follow the progress of Bloom, a project from the foundational New Enterprises class at MIT, as the team goes through the 24 Steps for the first time. You will see how a new idea goes through the formulation stage all the way to the end of the 24 Steps, and I will add commentary to highlight aspects of their plans that I think are comprehensive, as well as aspects that I think they can improve as they do a second or third pass. You will see just how hard it is to get everything right on the first try, and how iterating and going back to work from previous steps is essential as you build out your new venture.

Bloom

In one of my classes, I had three talented women who identified a large and growing problem that they had a burning desire to solve. Anisha Quadir, Madeleine Cooney, and Sarah Malek shared a common experience of being young professionals who had to move around for their jobs. They had witnessed firsthand what some were calling “the loneliness epidemic.” After a quick search on the Internet, they found out that what they were seeing was not unusual. One survey found that 45% of adults are eager to make new friends but found it difficult. Remediating the loneliness epidemic was their “raison d’être.”

The first exercise was to think about all the potential customers who could benefit from this general idea. They were forced to think about different market segments with different needs beyond just theirs. This led them to spend a good deal of time doing PMR to learn more.

Through their PMR, they found that there were many causes of loneliness across a wide spectrum of women.

They found that increased remote working was removing traditional social interactions that were a source of friendship, and a rise in the gig economy allowing for more flexible work with less socialization. These factors, coupled with the traditional life transition from college to a post-college lifestyle, resulted in an epidemic of loneliness, or at least something that had lots of room for improvement.

This PMR helped them better understand what they were reading in secondary market research, which said that people reported barriers to making friends included feeling too shy, not knowing where to meet potential new friends in a healthy way, and feeling that other friend groups had already been formed.

With this in mind, the three women fearlessly threw themselves into solving this problem. They named their project for class “Bloom” with the purpose of allowing women to build and sustain

relationships more easily. What would start out as a class project turned out to have a much longer life. It would go on to exist with a different name after the class. But for this book I will focus on the process they followed to take this general idea and make a concrete business out of it.

As you can imagine, after they had started to do their PMR, their Market Segmentation led to a broad spectrum of potential markets even beyond women. It ranged from youth to elderly across many demographics. They quickly realized that while some of the other markets might be even bigger, their passion and, frankly, competitive advantage was with women, which cut the market in half to start. Then they narrowed the market down further to women who had graduated from college. At this point they did more focused PMR, interviewing dozens of women in their potential target market segments (Figure 1.5).

PMR Lessons Learned			
<i>Initial Market: PMR Lessons</i>			
Hypothesis	Validated	Finding	Next Step
Friendship is a sensitive topic	Validated	Women don't want to look desperate for friends, this created a stigma against BumbleBFF / FB groups for some.	Brand the product for social discovery rather than for those who do not have friends
Women need social friends in the same phase of life and/or location as them	Validated	Women wanted others to socialize with in their area / stage of life, not a replacement for existing friends. Also often filter based on perceived similarities, e.g. school as a proxy for ambition / interest.	Enable users to filter or identify friends based on certain criteria
Scheduling is a big pain point	Validated	Women with non-traditional jobs or demanding jobs need to find friends with similar schedules.	Pressure test ways for Bloom to support scheduling of events to alleviate user pain points
Type of event is important and selects attendees	Validated	Money is a big barrier for women - either want more expensive places or inexpensive (both extremes exist). Investigated activity meetups and found workouts to be oversaturated for initial launch.	Enable users to indicate financial constraints without exposing to end user; enable that to support filtering
New grads are the best beachhead market	Validated with hesitancy	Strong opportunity for HENRY's, want friends with: 1) High ambition 2) Similar schedules given demanding jobs 3) High willingness to pay (e.g. prefer nice restaurants / "elite" activities). Prior to graduation, students are not thinking ahead on how to make friends in new cities.	Continue to conduct user interviews to validate the beachhead market and pressure test concerns
Some would enjoy being the "planner of events" for their assigned Bloom	Invalidated	Majority of women interviewed did not want to make the plan for a new group.	Identify ways to alleviate the overhead associated with planning events and validate those ideas via speaking with users
Big cities will be easier to launch the product	Invalidated	Smaller cities have fewer options; some cities such as NYC are oversaturated with solutions.	Continue to conduct interviews to understand which areas are best to launch and what changes would need to be made accordingly

Figure 1.5: Bloom's initial PMR summary.



Figure 1.6: Secondary market research to complement the initial PMR the Bloom team had done.

The team then did some more secondary market research to externally validate what they were seeing and found compelling evidence that they were on the right path (Figure 1.6). The most relevant article came from *Harvard Business Review* and it reaffirmed and sharpened their focus on the college graduate professional market. Combining their PMR with this secondary research, they had unique insights they would not have gotten from either alone. The team now was more determined, more motivated, and more focused.

With this in mind the team now built their Market Segmentation Matrix. After much discussion, they narrowed down the markets to seven market segments (Figure 1.7). Once they had the matrix structure with the market segments and rows, it took dozens of interviews and research online to collect the relevant information to fill it out.

Market Segmentation Matrix

Market Segment Name	Fresh Grads	The "Floker"	New Moms	H.E.N.R.Y Women - High Earning Not Rich Yet
End User	- Young women aged 21-25 who are new entrants in the city, having just graduated college	- Young women aged 24-27 who have relocated and thus need to expand their social circles	- Young mothers who do not already have a group of established "mom" friends	- Young women aged 24-30 who are generally high achieving - Have invested significant time into education and their careers
Task	Meet more people in the area so they can make friends and develop supporting relationships	Find like minded individuals to complete activities with them in a new city	Meet other young mothers who she can relate to and who can serve as a support system	Find other ambitious women looking to connect with other young, ambitious women
Benefit	Grow their social and emotional network in the area that they are living	Grow their social and emotional network in the area that they are living	Creating a safe space for mothers to meet other parents in the same stage of life	Find others who have similar schedules, ambitions, high-end interests
Urgency of Need	High	High	Medium	High
Example End User	University of Oregon 2021 grad who just moved to Austin TX for a new job	Moving to Boston from LA to start a new job as Manager at a Bank	First time mom, age 28, who does not have any existing friends with kids	30 year old investment banker living in NYC
Lead Customers	Social Media Influencers	Social Media Influencers	Social Media Influencers, Moms	High-end luxury apartment buildings
Willingness to Change	High	Medium	Medium	Medium
Frequency of Buying	High	High	Low	Medium
Concentration of Buyers	High	Medium	High	Low
Other relevant market segment Considerations	High Virality effect "word of mouth"	High Virality effect "word of mouth", feel embarrassed about not having local friends	Peanut already exists as a strong competitor in this niche market	May be more interested in a platform that is "exclusive" in some way
Size of Market (# of end users)	2 million	2 million	1 million	500,000
Est. value of end user (\$1, \$10, \$100, \$1K ect.)	\$10 - \$20 ARPU	\$20 - \$30 ARPU	\$20 - \$30 ARPU	\$30 - \$40 ARPU
Competition/ Alternatives	Bumble BFF, Meetup, Facebook groups, dating apps	Bumble BFF, Meetup, Facebook groups, co-working spaces, Junior League	Bumble BFF, Meetup, Facebook Groups, Nextdoor, Peanut	Co-working spaces, Chief, Junior League, Charity organizations
Other components needed for a full solution	App needs to be free, and need to partner with local restaurants/activities/services for advertisement	Network effects and enough users to be matched in different groups every two weeks	Ability to filter by or find other new moms on the platform; App needs to be free to compete with Peanut	Activities offered need to be a certain level of caliber or to appeal to this segment
Important Partners	Lobbies of buildings/ HR departments to promote apps for "new to the city"	Advertisement platform with relevant restaurants, beauty services, female health services, event platforms	Relevant brands to new mothers; local businesses surrounding motherhood	Brands and businesses that are seen as "high-end" or exclusive; managed luxury apartment buildings
Other relevant personal considerations	Regional cultures/attitudes in different US cities. The types of events /activities women enjoy	Regional cultures/attitudes in different US cities. The types of events /activities women enjoy	Ability to host events that include children. Factoring in the age of children to the app	Expectations of a HENRY vs. other segments may be higher because network and time value of money may be more important

Figure 1.7: Market Segmentation results for Bloom.

(Note: A more robust version is available in Additional Resources with seven market segments.)

SensAble Technologies (Technology Push)

SensAble Technologies was my second startup and it is a wonderful example of how to do Market Segmentation in a successful manner. SensAble started its life as a powerful but raw technology that enables people to feel three-dimensional (3D) objects rendered by a computer. Based in the MIT Artificial Intelligence Laboratory and specifically in the Robotics Laboratory supervised by the legendary Professor Rodney Brooks, then-MIT undergraduate Thomas Massie—working with Professor Ken Salisbury—created a new device that would give its user the sense of touching virtual objects using a stylus-like interface. The device, named the PHANToM, would simulate shapes, motion, weight, and many other physical properties by increasing or decreasing the resistance or force felt by a user when moving a finger or stylus (Figure 1.8).

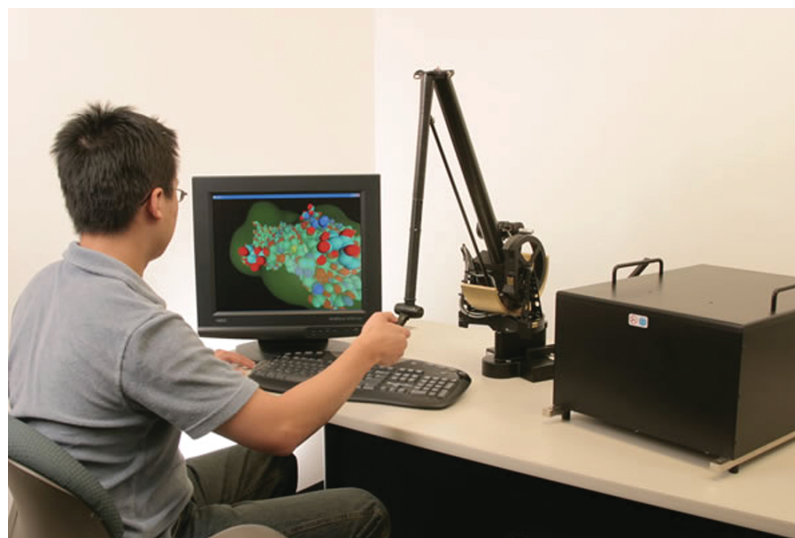


Figure 1.8: The Sensable PHANTOM.

As others heard about this breakthrough idea and subsequent technological implementation, Massie received queries from all over the world about potential uses for the technology. Thomas and MIT smartly filed a patent for the fundamental concept of the PHANTOM that made it a breakthrough. He started to sell versions of the lab product. However, his “early adopters” consisted mainly of universities and research labs—“technological enthusiasts” who will buy almost any innovative product. (Geoffrey Moore’s book *Crossing the Chasm* goes into greater detail about technological enthusiasts, and says that these customers can be a first bridge to the ultimately most desirable broader market called the “early majority.”)

When I first met Thomas, he was selling these devices to researchers under the company name Sensable Devices. He was interested in building a much more commercially oriented business that could have a bigger impact on the world, so we joined forces to create Sensable Technologies.

We worked hard to find a scalable market opportunity that would allow our business to reach the goals we had set out to achieve: being a company worth tens of millions of dollars in the relatively short time horizon of five years or less. I worked with our business development manager, John Ranta, who had experience in previous startups identifying such market opportunities and doing the hard work of PMR with customers to discover their real needs. We spent weeks building out a list of potential markets, using our current customers, trade show feedback, incoming product inquiries, and our own imaginations as sources of ideas.

No idea was too crazy at this point: a boxing channel, fixing space stations, computer mice that vibrated, helping to perform medical surgery, pornography, new computer games, educational opportunities, data analysis, flight simulators, virtual worlds, museums, sports training, computers for the blind. We did not prejudge any idea; rather, we wanted to open the aperture as wide as possible.

We discussed ideas weekly, sometimes nightly, and we discussed our core values and personal passions, which made certain markets unattractive (e.g., pornography). Another outcome of our brainstorming was that we saw where our product's real value was—applications that used 3D data, not those using two-dimensional (2D) data.

Once we had a comprehensive list of possibilities, we then systematically narrowed the field down to eight industries, and made the outline for a Market Segmentation chart (Figure 1.9).

Each of these market segments was a legitimate candidate for our initial market, and each was distinctive with different sets of customers, end users, and applications. For example, “Entertainment” was chosen as a potential market because of the strong interest we received from computer animators making 3D movies like the original *Toy Story*. Our tool would make it easier for them to design on the computer without their design intent being compromised. They could also do it in a much more productive manner than was available at that time.

Similar to what we learned in the digital entertainment industry from an application standpoint, the “Industrial Design” industry was selected based on feedback that product designers wanted to create 3D shapes on the computer in a way that was as easy as working with physical clay.

Likewise in each group—Medical Visualization (of 3D data), Surgical Simulation (and training), Micro Surgery (robotic-controlled operating room procedures), Geophysical Visualization (analysis of 3D seismic data), Non Visual C.H.I. (Computer Human Interface for the blind to use computers), and Prototyping (virtual prototyping of CAD/CAM files to see how they worked together; for example, to check to see assembly feasibility)—we had enough evidence to know that the market satisfied well the seven key questions presented earlier in this step.

For each of these segments, we then had to do PMR to fill out the matrix. Somewhere around 90% of the data in the chart came from direct interaction and talking with real potential customers in these industries about their situations, pain points, opportunities, and market characteristics. Very little data came from reports by well-known research firms or by finding data on the Internet.

This was a time-consuming but absolutely essential part of the process. Fortunately, because we had strong intellectual property through our MIT patent filing, we had the luxury of being able to take more time. Another factor that gave us more time was that we were already selling to technological enthusiasts, which gave us enough of a revenue stream that we could spend over three months on the Market Segmentation analysis. You will want to spend at least a few weeks, but you are unlikely to have the good fortune to be able to spend as much time as we did.

Disciplined Entrepreneurship Expanded and Updated

Industry	Entertainment	Industrial Design	Medical Visualization	Surgical Simulation	Micro Surgery	Geophysical Visualization	Non Visual C.H.I.	Prototyping
End User	• Animator	• Stylist • Designer	• Radiologist • Surgeon	• Med Student • Surgeon	• Surgeon	• Geophysicist	• Blind Person	• Engineer
Application	• Sculpt • Animation • Paint	• Sculpt • Paint • Modeling	• Segment-ation • Navigation • Surgical planning • Diagnosis	• Training • Surgical planning	• Opthalm. Surgery • Neurosurgery	• View enhancement • Drill plan	• H.U.I.	• Design review • Model evaluation
Benefits	• Ease of use • Reduce cycle	• Reduce cycle • Increase accuracy	• Ease of use • Increase accuracy	• Increase use of new tech. • Increase accuracy	• Reduce cycle • Increase accuracy	• Reduce errors • Increase yields	• Increase access, "mainstream"	• Reduce cycle • Improve designs
Lead Customers	• Disney • ILM • Dreamworks	• Toyota • Ford • Rollerblade	• Brigham & Women's • German Cancer Rsrch	• U of Colorado • Penn • BDI	• Dr. Ohgami • Ottawa Eye	• BHP • WMC/ CSIRO	• Certec • U Delaware	• Volkswagen • Stratasys • Toyota
Market Characteristics	• Early adopt • High-priced talent • High growth	• Dislike CAD & computers • High-priced talent	• Mainstream • High-priced talent • HMO	• Mainstream • High-priced talent • HMO	• Early adopt • High-priced talent • HMO • Not computer automated	• Late main • Oligopoly	• Late main • No money • Gov't sponsor	• Mainstream • Pressure to reduce prod. cycle
Partners/ Players	• Alias • Soft Image • Discrete Logic	• PTC • Alias • Imageware	• GE • Siemens • Picker	• Smith & Neph • Heartport • Ethicon • US Surgical	• Toshiba • Hitachi	• Landmark • Fractal Graphics	• IBM • Apple • SUN • HP • Microsoft	• PTC • Solid Works
Size of Market	40,000	X00,000	X0,000	X0,000	X,000	X,000	X,000,000	X,00,000
Competition	Watcom	None yet	None yet	Immersion	None yet	None yet		None yet
Platform	• SGI • Windows	• SGI • SUN	• SGI • SUN	?	None	• SGI • SUN	• Windows	• SUN, HF
Needs	• NURBS • Stylus • Dynamics	• NURBS • Stylus	• Voxels • Stylus • VRML	• 6 DOF • Custom devices	• 3 Finger scaling	• Voxels • Stylus	• Windows I/F • P300	• NURBS • VRML • Dynamics

Figure 1.9: SensAble Market Segmentation Matrix.

Our matrix included a line for “platform,” which referred to the computer operating system and hardware that our technology would require for it to be adopted by that particular market segment. This may or may not be relevant to you, but it was to us at the time because there was a big difference in computer platforms.

Our row labeled “Needs” depended on which industry we would target. For the animator in the entertainment market segment, we included a NURBS (Non-Uniform Rational B-Splines) geometry engine so it could output the data files to the Alias Wavefront visual rendering animation suite. This software program was used by animators worldwide to create the three-dimensional animated images you see in animated movies today. The device would also have to include a stylus because the animators loved to sketch in 2D and were very accustomed to this. The last piece that we needed to include was a dynamics engine so that the figure could move in a realistic manner. All three of these items were generally available through other vendors so they were not critical parts. Still, it was important to have a very specific understanding of what our end users were using, to know what else was needed to make our system functional enough to meet their needs.

Gradeable (Market Pull)

SensAble Technologies is a classic technology push example (i.e., a new technology looking for a market). The question I often get after I explain that example is “Does this work for a situation where I don’t have a technology but rather see a problem that needs to be solved?” This is the definition of the reverse situation, called “market pull,” where you have a problem and you need to find a solution. The answer to the question is “Absolutely yes!” I have never seen a situation where Market Segmentation was not only possible but helpful. The Bloom example is one of a market pull. Let me give you another market pull example.

Gradeable was conceived by former students Parul Singh and Dante Cassanego based on their direct experience with teachers in public schools. They were an outstanding team with a shared vision and complementary skills. They were obsessed with making education better by empowering teachers with technology so they could focus on what they do best: teach students. They quickly learned that grading was one of the most productivity-zapping and energy-draining parts of their job. The current state was that when a teacher finished their school day (which was long) and went home to relax, they had to often spend hours doing the generally rote process of grading.

Both Parul and Dante were technology savvy and so they envisioned a way that teachers would be in large part relieved of this burden by using technology. They had no proprietary technology but they understood that by simply building a stand and putting a tablet computer (like an iPad) on the top, and then putting the students’ submitted work underneath it and taking a picture of it, software could be written that could automatically generate grades.

In summary, the teachers would save enormous amounts of time from a low-value-add task as well as one that drained their energy and took away time from doing what they loved and where they contributed the most value—interacting with their students in a customized and thoughtful manner. Seems great, so how do Parul and Dante start the Market Segmentation?

Easy. What are the different market segments? You can start with segmenting in many different dimensions and there is no singular order that is correct. Let's start with the subject matter. Is it math, science, social studies, language arts, art, or something else? Other important segmentations would be grade level and type of school. Another key segmentation would be geography, which could quickly get down to regions such as U.S. states because of the state-specific regulations and decision-making process. A very important segmentation would be the demographics and psychographics (lots more on this in later steps) of the teachers. Are they new teachers with 0–5 years of experience, or 5–10 years, or more? How tech-savvy are they? See Figure 1.10 for a summary. Note that they customized the various dimensions greatly to better reflect the data that would help them segment their markets.

Market Segmentation Example for Teachers

Dimension	Option #1	Option #2	Option #3	Option #4	Option #5
Subject	Math	Science	Language Arts	Social Studies	Other
Level	Pre-K	Elementary	Middle	High School	Other
Type of School	Public	Independent	Religious	Vocational	Other
Geography #1	Massachusetts	New York	Connecticut	New Hampshire	Other
Geography #2	Urban	Suburban	Exurban	Rural	Other
Experience of Teacher	0–5 years	5–10 year	10–15 years	15 years+	Other
Receptivity to Technology	Technological Enthusiast	Early Adopter	Early Majority	Late Majority	Laggard
More to the specific situation . . .					

Figure 1.10: Market Segmentation options for a market pull example, Gradeable.

As you can see, the target customer segment is not just “teachers” but many different types of teachers, and it is extremely important to differentiate between them so the team can get focus. Even if some might have similar needs and want exactly the same product, they will have different circumstances and how they have to sell to them will vary, and that will make all the difference.

ADDITIONAL RESOURCES

There are additional resources for this step at www.d-eship.com/step1. These materials include:

- Video: Market Segmentation Explainers by Bill Aulet and Erdin Beshimov
- Video: Example described and explained in an interview with FINsix founder Vanessa Green Coleman
- Worksheet 1.1: Structure for Brainstorming Market Segments
- Worksheet 1.2: Market Segmentation Matrix (digital copy of what’s in this book)
- Bloom Market Segmentation example: More detailed matrix with 7 market segments
- More Details on Prioritizing Market Segments

Additional resources will be added as new and updated examples and information become available.

Summary

The Market Segmentation process identifies multiple potential market opportunities. Once you have a list of potential markets, PMR on a finite number of market segments will help you determine which markets are best for your idea or technology. The goal of the research is not to provide a perfect solution, but to present a wide spectrum of market opportunities as you start to think about where you will focus your business. PMR, which involves talking directly with customers and observing them, is by far the best way to identify good market opportunities. This research will help you select a Beachhead Market in the next step.

I can say now after having seen thousands of plans, problems that arise later are most often the result of the entrepreneur not doing a rigorous job of Market Segmentation up front, so invest your time and effort here and it will pay many dividends later.